
Amazon Managed Blockchain

API Reference

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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. Currently, Managed Blockchain supports the Hyperledger Fabric open source framework.

This document was last published on September 17, 2019.

Actions

The following actions are supported:

- [CreateMember](#) (p. 3)
- [CreateNetwork](#) (p. 6)
- [CreateNode](#) (p. 10)
- [CreateProposal](#) (p. 13)
- [DeleteMember](#) (p. 16)
- [DeleteNode](#) (p. 18)
- [GetMember](#) (p. 20)
- [GetNetwork](#) (p. 23)
- [GetNode](#) (p. 26)
- [GetProposal](#) (p. 29)
- [ListInvitations](#) (p. 32)
- [ListMembers](#) (p. 35)
- [ListNetworks](#) (p. 38)
- [ListNodes](#) (p. 41)
- [ListProposals](#) (p. 44)
- [ListProposalVotes](#) (p. 47)
- [RejectInvitation](#) (p. 50)
- [VoteOnProposal](#) (p. 52)

CreateMember

Creates a member within a Managed Blockchain network.

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"
      }
    },
    "Name": "string"
  }
}
```

URI Request Parameters

The request requires the following URI parameters.

networkId (p. 3)

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

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

Request Body

The request accepts the following data in JSON format.

ClientRequestToken (p. 3)

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 (p. 3)

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 (p. 3)

Member configuration parameters.

Type: [MemberConfiguration \(p. 62\)](#) 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 (p. 4)

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 Errors \(p. 95\)](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerErrorException

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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but is not in a status that can complete the operation.

HTTP Status Code: 409

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

CreateNetwork

Creates a new blockchain network using Amazon Managed Blockchain.

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"
      }
    }
  },
  "Name": "string"
},
"Name": "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 (p. 6)

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 (p. 6)

An optional description for the network.

Type: String

Length Constraints: Maximum length of 128.

Required: No

Framework (p. 6)

The blockchain framework that the network uses.

Type: String

Valid Values: `HYPERLEDGER_FABRIC`

Required: Yes

FrameworkConfiguration (p. 6)

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

Type: [NetworkFrameworkConfiguration \(p. 74\)](#) object

Required: No

FrameworkVersion (p. 6)

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 (p. 6)

Configuration properties for the first member within the network.

Type: [MemberConfiguration \(p. 62\)](#) object

Required: Yes

Name (p. 6)

The name of the network.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

VotingPolicy (p. 6)

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

Type: [VotingPolicy \(p. 92\)](#) 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 (p. 8)

The unique identifier for the first member within the network.

Type: String

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

NetworkId (p. 8)

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 Errors \(p. 95\)](#).

AccessDeniedException

You do not 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 could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

CreateNode

Creates a peer node in a member.

Request Syntax

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

{
  "ClientRequestToken": "string",
  "NodeConfiguration": {
    "AvailabilityZone": "string",
    "InstanceType": "string"
  }
}
```

URI Request Parameters

The request requires the following URI parameters.

memberId (p. 10)

The unique identifier of the member that owns this node.

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

networkId (p. 10)

The unique identifier of the network in which this node runs.

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

Request Body

The request accepts the following data in JSON format.

ClientRequestToken (p. 10)

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

NodeConfiguration (p. 10)

The properties of a node configuration.

Type: [NodeConfiguration](#) (p. 79) object

Required: Yes

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 (p. 11)

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 Errors \(p. 95\)](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerErrorException

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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but is not in a status that can complete the operation.

HTTP Status Code: 409

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

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.

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"  
}
```

URI Request Parameters

The request requires the following URI parameters.

networkId (p. 13)

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

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

Request Body

The request accepts the following data in JSON format.

Actions (p. 13)

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](#) (p. 87) object

Required: Yes

ClientRequestToken (p. 13)

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 (p. 13)

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 (p. 13)

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

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 (p. 14)

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 Errors \(p. 95\)](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerErrorException

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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but is not in a status that can complete the operation.

HTTP Status Code: 409

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
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- [AWS SDK for Ruby V2](#)

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.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

`memberId` (p. 16)

The unique identifier of the member to remove.

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

`networkId` (p. 16)

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

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

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 Errors \(p. 95\)](#).

AccessDeniedException

You do not 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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but is not in a status that can complete the operation.

HTTP Status Code: 409

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

DeleteNode

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

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

memberId (p. 18)

The unique identifier of the member that owns this node.

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

networkId (p. 18)

The unique identifier of the network that the node belongs to.

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

nodeId (p. 18)

The unique identifier of the node.

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

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 Errors \(p. 95\)](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerErrorException

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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ResourceNotReadyException

The requested resource exists but is not in a status that can complete the operation.

HTTP Status Code: 409

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
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- [AWS SDK for JavaScript](#)
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- [AWS SDK for Ruby V2](#)

GetMember

Returns detailed information about a member.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

memberId (p. 20)

The unique identifier of the member.

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

networkId (p. 20)

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

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

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Member": {
    "CreationDate": number,
    "Description": "string",
    "FrameworkAttributes": {
      "Fabric": {
        "AdminUsername": "string",
        "CaEndpoint": "string"
      }
    },
    "Id": "string",
    "Name": "string",
    "NetworkId": "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.

Member (p. 20)

The properties of a member.

Type: [Member \(p. 60\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 95\)](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerErrorException

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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

GetNetwork

Returns detailed information about a network.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

networkId (p. 23)

The unique identifier of the network to get information about.

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

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Network": {
    "CreationDate": number,
    "Description": "string",
    "Framework": "string",
    "FrameworkAttributes": {
      "Fabric": {
        "Edition": "string",
        "OrderingServiceEndpoint": "string"
      }
    },
    "FrameworkVersion": "string",
    "Id": "string",
    "Name": "string",
    "Status": "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 (p. 23)

An object containing network configuration parameters.

Type: [Network \(p. 69\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 95\)](#).

AccessDeniedException

You do not 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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V2](#)

GetNode

Returns detailed information about a peer node.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

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

The unique identifier of the member that owns the node.

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

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

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

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

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

The unique identifier of the node.

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

Request Body

The request does not have a request body.

Response Syntax

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

{
  "Node": {
    "AvailabilityZone": "string",
    "CreationDate": number,
    "FrameworkAttributes": {
      "Fabric": {
        "PeerEndpoint": "string",
        "PeerEventEndpoint": "string"
      }
    },
    "Id": "string",
    "InstanceType": "string",
    "MemberId": "string",
    "NetworkId": "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.

Node (p. 26)

Properties of the node configuration.

Type: [Node \(p. 77\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 95\)](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerErrorException

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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)

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

GetProposal

Returns detailed information about a proposal.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

[networkId \(p. 29\)](#)

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

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

[proposalId \(p. 29\)](#)

The unique identifier of the proposal.

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

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"
        }
      ]
    },
    "CreationDate": number,
    "Description": "string",
    "ExpirationDate": number,
    "NetworkId": "string",
    "NoVoteCount": number,
    "OutstandingVoteCount": number,
    "ProposalId": "string",
    "ProposedByMemberId": "string",
    "ProposedByMemberName": "string",
    "Status": "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 (p. 29)

Information about a proposal.

Type: [Proposal \(p. 84\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 95\)](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerErrorException

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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)

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

ListInvitations

Returns a listing of all invitations made on the specified network.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

MaxResults (p. 32)

The maximum number of invitations to return.

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

NextToken (p. 32)

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": [
    {
      "CreationDate": number,
      "ExpirationDate": number,
      "InvitationId": "string",
      "NetworkSummary": {
        "CreationDate": number,
        "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 (p. 32)

The invitations for the network.

Type: Array of [Invitation \(p. 57\)](#) objects

NextToken (p. 32)

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 Errors \(p. 95\)](#).

AccessDeniedException

You do not 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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

ListMembers

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

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

IsOwned (p. 35)

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

MaxResults (p. 35)

The maximum number of members to return in the request.

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

Name (p. 35)

The optional name of the member to list.

networkId (p. 35)

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

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

NextToken (p. 35)

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

Length Constraints: Maximum length of 128.

Status (p. 35)

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

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  
  
{
```

```
"Members": [  
  {  
    "CreationDate": number,  
    "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 (p. 35)

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

Type: Array of `MemberSummary` (p. 67) objects

NextToken (p. 35)

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 Errors](#) (p. 95).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerErrorException

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 could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

ListNetworks

Returns information about the networks in which the current AWS account has members.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

Framework (p. 38)

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

Valid Values: HYPERLEDGER_FABRIC

MaxResults (p. 38)

The maximum number of networks to list.

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

Name (p. 38)

The name of the network.

NextToken (p. 38)

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

Length Constraints: Maximum length of 128.

Status (p. 38)

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

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": [  
    {  
      "CreationDate": number,  
      "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 (p. 38)

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

Type: Array of `NetworkSummary` (p. 75) objects

NextToken (p. 38)

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 Errors](#) (p. 95).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerErrorException

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 could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

ListNodes

Returns information about the nodes within a network.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

MaxResults (p. 41)

The maximum number of nodes to list.

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

memberId (p. 41)

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

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

networkId (p. 41)

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

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

NextToken (p. 41)

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

Length Constraints: Maximum length of 128.

Status (p. 41)

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

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

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200  
Content-type: application/json  
  
{  
  "NextToken": "string",  
  "Nodes": [  
    {  
      "AvailabilityZone": "string",
```



```
    "CreationDate": number,  
    "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 (p. 41)

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

Type: String

Length Constraints: Maximum length of 128.

Nodes (p. 41)

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

Type: Array of [NodeSummary \(p. 82\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 95\)](#).

AccessDeniedException

You do not 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 could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

ListProposals

Returns a listing of proposals for the network.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

MaxResults (p. 44)

The maximum number of proposals to return.

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

networkId (p. 44)

The unique identifier of the network.

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

NextToken (p. 44)

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": [
    {
      "CreationDate": number,
      "Description": "string",
      "ExpirationDate": number,
      "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 (p. 44)

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

Type: String

Length Constraints: Maximum length of 128.

Proposals (p. 44)

The summary of each proposal made on the network.

Type: Array of [ProposalSummary \(p. 88\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 95\)](#).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerErrorException

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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListProposalVotes

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

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

MaxResults (p. 47)

The maximum number of votes to return.

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

networkId (p. 47)

The unique identifier of the network.

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

NextToken (p. 47)

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

Length Constraints: Maximum length of 128.

proposalId (p. 47)

The unique identifier of the proposal.

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

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 (p. 47)

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

Type: String

Length Constraints: Maximum length of 128.

ProposalVotes (p. 47)

The listing of votes.

Type: Array of [VoteSummary](#) (p. 91) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 95).

AccessDeniedException

You do not 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 could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)

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

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.

Request Syntax

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

URI Request Parameters

The request requires the following URI parameters.

invitationId (p. 50)

The unique identifier of the invitation to reject.

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

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 Errors \(p. 95\)](#).

AccessDeniedException

You do not 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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V2](#)

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.

Request Syntax

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

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

URI Request Parameters

The request requires the following URI parameters.

`networkId` (p. 52)

The unique identifier of the network.

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

`proposalId` (p. 52)

The unique identifier of the proposal.

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

Request Body

The request accepts the following data in JSON format.

`Vote` (p. 52)

The value of the vote.

Type: String

Valid Values: YES | NO

Required: Yes

`VoterMemberId` (p. 52)

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 Errors \(p. 95\)](#).

AccessDeniedException

You do not 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 does not exist on the network. It may have been deleted or referenced inaccurately.

HTTP Status Code: 404

ThrottlingException

The request or operation could not be performed because a service is throttling requests. The most common source of throttling errors is launching EC2 instances such that your service limit for EC2 instances is exceeded. 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Go - Pilot](#)

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

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:

- [ApprovalThresholdPolicy](#) (p. 56)
- [Invitation](#) (p. 57)
- [InviteAction](#) (p. 59)
- [Member](#) (p. 60)
- [MemberConfiguration](#) (p. 62)
- [MemberFabricAttributes](#) (p. 63)
- [MemberFabricConfiguration](#) (p. 64)
- [MemberFrameworkAttributes](#) (p. 65)
- [MemberFrameworkConfiguration](#) (p. 66)
- [MemberSummary](#) (p. 67)
- [Network](#) (p. 69)
- [NetworkFabricAttributes](#) (p. 71)
- [NetworkFabricConfiguration](#) (p. 72)
- [NetworkFrameworkAttributes](#) (p. 73)
- [NetworkFrameworkConfiguration](#) (p. 74)
- [NetworkSummary](#) (p. 75)
- [Node](#) (p. 77)
- [NodeConfiguration](#) (p. 79)
- [NodeFabricAttributes](#) (p. 80)
- [NodeFrameworkAttributes](#) (p. 81)
- [NodeSummary](#) (p. 82)
- [Proposal](#) (p. 84)
- [ProposalActions](#) (p. 87)
- [ProposalSummary](#) (p. 88)
- [RemoveAction](#) (p. 90)
- [VoteSummary](#) (p. 91)
- [VotingPolicy](#) (p. 92)

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.

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` are not 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

Invitation

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

Contents

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 \(p. 75\)](#) object

Required: No

Status

The status of the invitation:

- `PENDING` - The invitee has not created a member to join the network, and the invitation has not yet expired.
- `ACCEPTING` - The invitee has begun creating a member, and creation has not 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

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`.

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

Member

Member configuration properties.

Contents

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 \(p. 65\)](#) object

Required: No

Id

The unique identifier of the member.

Type: String

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

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.
- `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.

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

MemberConfiguration

Configuration properties of the member.

Contents

Description

An optional description of the member.

Type: String

Length Constraints: Maximum length of 128.

Required: No

FrameworkConfiguration

Configuration properties of the blockchain framework relevant to the member.

Type: [MemberFrameworkConfiguration \(p. 66\)](#) 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

See Also

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

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

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

MemberFabricConfiguration

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

Contents

AdminPassword

The password for the member's initial administrative user. The `AdminPassword` must be at least eight 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 quote('), double quote("), forward slash(/), 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

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](#) (p. 63) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

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 \(p. 64\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

MemberSummary

A summary of configuration properties for a member.

Contents

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.
- `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.

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

Network

Network configuration properties.

Contents

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`

Required: No

FrameworkAttributes

Attributes of the blockchain framework that the network uses.

Type: [NetworkFrameworkAttributes](#) (p. 73) 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

VotingPolicy

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

Type: [VotingPolicy \(p. 92\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

NetworkFrameworkAttributes

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

Contents

Fabric

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

Type: [NetworkFabricAttributes](#) (p. 71) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

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 \(p. 72\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

NetworkSummary

A summary of network configuration properties.

Contents

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`

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

Node

Configuration properties of a peer node.

Contents

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

FrameworkAttributes

Attributes of the blockchain framework being used.

Type: [NodeFrameworkAttributes \(p. 81\)](#) 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

MemberId

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

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 in.

Type: String

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

Required: No

Status

The status of the node.

Type: String

Valid Values: CREATING | AVAILABLE | CREATE_FAILED | DELETING | DELETED | 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

NodeConfiguration

Configuration properties of a peer node.

Contents

AvailabilityZone

The Availability Zone in which the node exists.

Type: String

Required: Yes

InstanceType

The Amazon Managed Blockchain instance type for the node.

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

NodeFabricAttributes

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

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

NodeFrameworkAttributes

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

Contents

Fabric

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

Type: [NodeFabricAttributes \(p. 80\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

NodeSummary

A summary of configuration properties for a peer node.

Contents

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 | CREATE_FAILED | DELETING | DELETED | 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)

- [AWS SDK for Ruby V2](#)

Proposal

Properties of a proposal on a Managed Blockchain network.

Contents

Actions

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

Type: [ProposalActions \(p. 87\)](#) object

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 have not cast enough votes to determine the outcome according to the voting policy, the proposal is `EXPIRED` and `Actions` are not 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** are not carried out.
- **EXPIRED** - Members did not cast the number of votes required to determine the proposal outcome before the proposal expired. The specified **ProposalActions** are not carried out.
- **ACTION_FAILED** - One or more of the specified **ProposalActions** in a proposal that was approved could not 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

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

ProposalActions

The actions to carry out if a proposal is `APPROVED`.

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 \(p. 59\)](#) 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 \(p. 90\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

ProposalSummary

Properties of a proposal.

Contents

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 have not cast enough votes to determine the outcome according to the voting policy, the proposal is `EXPIRED` and `Actions` are not 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` are not carried out.
- `EXPIRED` - Members did not cast the number of votes required to determine the proposal outcome before the proposal expired. The specified `ProposalActions` are not carried out.
- `ACTION_FAILED` - One or more of the specified `ProposalActions` in a proposal that was approved could not 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

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.

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

VoteSummary

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

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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

VotingPolicy

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

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 \(p. 56\)](#) 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 Go](#)
- [AWS SDK for Go - Pilot](#)
- [AWS SDK for Java](#)
- [AWS SDK for Ruby V2](#)

Common Parameters

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

Action

The action to be performed.

Type: string

Required: Yes

Version

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

Type: string

Required: Yes

X-Amz-Algorithm

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

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

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential

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

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

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

Type: string

Required: Conditional

X-Amz-Date

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

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

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

Type: string

Required: Conditional

X-Amz-Security-Token

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

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

Type: string

Required: Conditional

X-Amz-Signature

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

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

Type: string

Required: Conditional

X-Amz-SignedHeaders

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

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

Type: string

Required: Conditional

Common Errors

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

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

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

HTTP Status Code: 500

InvalidAction

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

HTTP Status Code: 400

InvalidClientTokenId

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

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

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

HTTP Status Code: 400

InvalidQueryParameter

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

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

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

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

OptInRequired

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

HTTP Status Code: 403

RequestExpired

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

HTTP Status Code: 400

ServiceUnavailable

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

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

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

HTTP Status Code: 400