
Amazon EC2 Instance Connect

API Reference

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Amazon EC2 Instance Connect: API Reference

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Welcome

Amazon EC2 Instance Connect enables system administrators to publish one-time use SSH public keys to EC2, providing users a simple and secure way to connect to their instances.

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Actions

The following actions are supported:

- [SendSerialConsoleSSHPublicKey](#) (p. 3)
- [SendSSHPublicKey](#) (p. 6)

SendSerialConsoleSSHPublicKey

Pushes an SSH public key to the specified EC2 instance. The key remains for 60 seconds, which gives you 60 seconds to establish a serial console connection to the instance using SSH. For more information, see [EC2 Serial Console](#) in the *Amazon EC2 User Guide*.

Request Syntax

```
{  
  "InstanceId": "string",  
  "SerialPort": number,  
  "SSHPublicKey": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 10).

The request accepts the following data in JSON format.

InstanceId (p. 3)

The ID of the EC2 instance.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 32.

Pattern: `^i-[a-f0-9]+$`

Required: Yes

SerialPort (p. 3)

The serial port of the EC2 instance. Currently only port 0 is supported.

Default: 0

Type: Integer

Valid Range: Fixed value of 0.

Required: No

SSHPublicKey (p. 3)

The public key material. To use the public key, you must have the matching private key. For information about the supported key formats and lengths, see [Requirements for key pairs](#) in the *Amazon EC2 User Guide*.

Type: String

Length Constraints: Minimum length of 80. Maximum length of 4096.

Required: Yes

Response Syntax

```
{  
  "RequestId": "string",  
  "Success": boolean  
}
```

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.

RequestId (p. 4)

The ID of the request. Please provide this ID when contacting AWS Support for assistance.

Type: String

Success (p. 4)

Is true if the request succeeds and an error otherwise.

Type: Boolean

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 12).

AuthException

Either your AWS credentials are not valid or you do not have access to the EC2 instance.

HTTP Status Code: 400

EC2InstanceNotFoundException

The specified instance was not found.

HTTP Status Code: 400

EC2InstanceStateInvalidException

Unable to connect because the instance is not in a valid state. Connecting to a stopped or terminated instance is not supported. If the instance is stopped, start your instance, and try to connect again.

HTTP Status Code: 400

EC2InstanceTypeInvalidException

The instance type is not supported for connecting via the serial console. Only Nitro instance types are currently supported.

HTTP Status Code: 400

EC2InstanceUnavailableException

The instance is currently unavailable. Wait a few minutes and try again.

HTTP Status Code: 400

InvalidArgsException

One of the parameters is not valid.

HTTP Status Code: 400

SerialConsoleAccessDisabledException

Your account is not authorized to use the EC2 Serial Console. To authorize your account, run the `EnableSerialConsoleAccess` API. For more information, see [EnableSerialConsoleAccess](#) in the *Amazon EC2 API Reference*.

HTTP Status Code: 400

SerialConsoleSessionLimitExceededException

The instance currently has 1 active serial console session. Only 1 session is supported at a time.

HTTP Status Code: 400

SerialConsoleSessionUnavailableException

Unable to start a serial console session. Please try again.

HTTP Status Code: 500

ServiceException

The service encountered an error. Follow the instructions in the error message and try again.

HTTP Status Code: 500

ThrottlingException

The requests were made too frequently and have been throttled. Wait a while and try again. To increase the limit on your request frequency, contact AWS Support.

HTTP Status Code: 400

See Also

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

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

SendSSHPublicKey

Pushes an SSH public key to the specified EC2 instance for use by the specified user. The key remains for 60 seconds. For more information, see [Connect to your Linux instance using EC2 Instance Connect](#) in the *Amazon EC2 User Guide*.

Request Syntax

```
{  
  "AvailabilityZone": "string",  
  "InstanceId": "string",  
  "InstanceOSUser": "string",  
  "SSHPublicKey": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 10).

The request accepts the following data in JSON format.

[AvailabilityZone](#) (p. 6)

The Availability Zone in which the EC2 instance was launched.

Type: String

Length Constraints: Minimum length of 6. Maximum length of 32.

Pattern: `^(\w+-){2,3}\d+\w+$`

Required: No

[InstanceId](#) (p. 6)

The ID of the EC2 instance.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 32.

Pattern: `^i-[a-f0-9]+$`

Required: Yes

[InstanceOSUser](#) (p. 6)

The OS user on the EC2 instance for whom the key can be used to authenticate.

Type: String

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

Pattern: `^[A-Za-z_][A-Za-z0-9\@\. _-]{0,30}[A-Za-z0-9\$_-]?$`

Required: Yes

[SSHPublicKey](#) (p. 6)

The public key material. To use the public key, you must have the matching private key.

Type: String

Length Constraints: Minimum length of 80. Maximum length of 4096.

Required: Yes

Response Syntax

```
{  
  "RequestId": "string",  
  "Success": boolean  
}
```

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.

[RequestId \(p. 7\)](#)

The ID of the request. Please provide this ID when contacting AWS Support for assistance.

Type: String

[Success \(p. 7\)](#)

Is true if the request succeeds and an error otherwise.

Type: Boolean

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 12\)](#).

AuthException

Either your AWS credentials are not valid or you do not have access to the EC2 instance.

HTTP Status Code: 400

EC2InstanceNotFoundException

The specified instance was not found.

HTTP Status Code: 400

EC2InstanceStateInvalidException

Unable to connect because the instance is not in a valid state. Connecting to a stopped or terminated instance is not supported. If the instance is stopped, start your instance, and try to connect again.

HTTP Status Code: 400

EC2InstanceUnavailableException

The instance is currently unavailable. Wait a few minutes and try again.

HTTP Status Code: 400

InvalidArgsException

One of the parameters is not valid.

HTTP Status Code: 400

ServiceException

The service encountered an error. Follow the instructions in the error message and try again.

HTTP Status Code: 500

ThrottlingException

The requests were made too frequently and have been throttled. Wait a while and try again. To increase the limit on your request frequency, contact AWS Support.

HTTP Status Code: 400

Examples

Push an SSH public key to an instance

This example sends the specified SSH public key to the specified instance in the specified Availability Zone. The key is used to authenticate the specified user.

Sample Request

```
POST / HTTP/1.1
Content-Type: application/x-amz-json-1.1
X-Amz-Target: AWSEC2InstanceConnectService.SendSSHPublicKey

{
  "AvailabilityZone": "us-east-2b",
  "InstanceId": "i-1234567890abcdef0",
  "InstanceOSUser": "ec2-user",
  "SSHPublicKey": "<ssh-public-key-material>"
}
```

See Also

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

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

Data Types

The AWS EC2 Instance Connect API has no separate data types.

Common Parameters

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

Action

The action to be performed.

Type: string

Required: Yes

Version

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

Type: string

Required: Yes

X-Amz-Algorithm

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

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

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

X-Amz-Credential

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

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

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

Type: string

Required: Conditional

X-Amz-Date

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

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

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

Type: string

Required: Conditional

X-Amz-Security-Token

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

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

Type: string

Required: Conditional

X-Amz-Signature

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

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

Type: string

Required: Conditional

X-Amz-SignedHeaders

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

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

Type: string

Required: Conditional

Common Errors

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

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

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

HTTP Status Code: 500

InvalidAction

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

HTTP Status Code: 400

InvalidClientTokenId

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

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

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

HTTP Status Code: 400

InvalidQueryParameter

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

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

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

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 400

OptInRequired

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

HTTP Status Code: 403

RequestExpired

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

HTTP Status Code: 400

ServiceUnavailable

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

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

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

HTTP Status Code: 400