AWS::Kinesis::Stream StreamEncryption

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Enables or updates server-side encryption using an AWS KMS key for a specified stream.

> ℹ️ **Note**
>
> When invoking this API, you must use either the `StreamARN` or the `StreamName` parameter, or both. It is recommended that you use the `StreamARN` input parameter when you invoke this API.

Starting encryption is an asynchronous operation. Upon receiving the request, Kinesis Data Streams returns immediately and sets the status of the stream to `UPDATING`. After the update is complete, Kinesis Data Streams sets the status of the stream back to `ACTIVE`. Updating or applying encryption normally takes a few seconds to complete, but it can take minutes. You can continue to read and write data to your stream while its status is `UPDATING`. Once the status of the stream is `ACTIVE`, encryption begins for records written to the stream.

API Limits: You can successfully apply a new AWS KMS key for server-side encryption 25 times in a rolling 24-hour period.

Note: It can take up to 5 seconds after the stream is in an `ACTIVE` status before all records written to the stream are encrypted. After you enable encryption, you can verify that encryption is applied by inspecting the API response from `PutRecord` or `PutRecords`.

Syntax

To declare this entity in your AWS CloudFormation template, use the following syntax:

JSON

```
{
    "EncryptionType" : String,
    "KeyId" : String
}
```

YAML

```
EncryptionType: String
KeyId: String
```

Properties

`EncryptionType`

The encryption type to use. The only valid value is `KMS`.

Required: Yes

Type: String

Allowed values: `KMS`

Update requires: [No interruption](#)

`KeyId`

The GUID for the customer-managed AWS KMS key to use for encryption. This value can be a globally unique identifier, a fully specified Amazon Resource Name (ARN) to either an alias or a key, or an alias name prefixed by "alias/".You can also use a master key owned by Kinesis Data Streams by specifying the alias `aws/kinesis`.

- Key ARN example: `arn:aws:kms:us-east-1:123456789012:key/12345678-1234-1234-1234-123456789012`
- Alias ARN example: `arn:aws:kms:us-east-1:123456789012:alias/MyAliasName`
- Globally unique key ID example: `12345678-1234-1234-1234-123456789012`
- Alias name example: `alias/MyAliasName`
- Master key owned by Kinesis Data Streams: `alias/aws/kinesis`

Required: Yes

Type: String

Minimum: `1`

Maximum: `2048`

Update requires: [No interruption](#)

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