



API Reference

# AWS HealthLake



**API Version 2017-07-01**

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# AWS HealthLake: API Reference

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# Welcome

This is the *AWS HealthLake API Reference*. For an introduction to the service, see [What is AWS HealthLake?](#) in the *AWS HealthLake Developer Guide*.

This document was last published on January 7, 2025.

# Actions

The following actions are supported:

- [CreateFHIRDatastore](#)
- [DeleteFHIRDatastore](#)
- [DescribeFHIRDatastore](#)
- [DescribeFHIRExportJob](#)
- [DescribeFHIRImportJob](#)
- [ListFHIRDatastores](#)
- [ListFHIRExportJobs](#)
- [ListFHIRImportJobs](#)
- [ListTagsForResource](#)
- [StartFHIRExportJob](#)
- [StartFHIRImportJob](#)
- [TagResource](#)
- [UntagResource](#)



# CreateFHIRDatastore

Create a FHIR-enabled data store.

## Request Syntax

```
{
  "ClientToken": "string",
  "DatastoreName": "string",
  "DatastoreTypeVersion": "string",
  "IdentityProviderConfiguration": {
    "AuthorizationStrategy": "string",
    "FineGrainedAuthorizationEnabled": boolean,
    "IdpLambdaArn": "string",
    "Metadata": "string"
  },
  "PreloadDataConfig": {
    "PreloadDataType": "string"
  },
  "SseConfiguration": {
    "KmsEncryptionConfig": {
      "CmkType": "string",
      "KmsKeyId": "string"
    }
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ClientToken

An optional user-provided token to ensure API idempotency.

Type: String

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

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

Required: No

### DatastoreName

The data store name (user-generated).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/+\\-%@]*)$`

Required: No

### DatastoreTypeVersion

The FHIR release version supported by the data store. Current support is for version R4.

Type: String

Valid Values: R4

Required: Yes

### IdentityProviderConfiguration

The identity provider configuration to use for the data store.

Type: [IdentityProviderConfiguration](#) object

Required: No

### PreloadDataConfig

An optional parameter to preload (import) open source Synthea FHIR data upon creation of the data store.

Type: [PreloadDataConfig](#) object

Required: No

## SseConfiguration

The server-side encryption key configuration for a customer-provided encryption key specified for creating a data store.

Type: [SseConfiguration](#) object

Required: No

## Tags

The resource tags applied to a data store when it is created.

Type: Array of [Tag](#) objects

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

Required: No

## Response Syntax

```
{
  "DatastoreArn": "string",
  "DatastoreEndpoint": "string",
  "DatastoreId": "string",
  "DatastoreStatus": "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.

### DatastoreArn

The Amazon Resource Name (ARN) for the data store.

Type: String

Pattern: `^arn:aws((-us-gov)|(-iso)|(-iso-b)|(-cn))?:healthlake:[a-zA-Z0-9-]+:[0-9]{12}:datastore/.+?`

## DatastoreEndpoint

The AWS endpoint created for the data store.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 5000.

Pattern: `[\P{M}\p{M}]{1,5000}`

## DatastoreId

The data store identifier.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

## DatastoreStatus

The data store status.

Type: String

Valid Values: CREATING | ACTIVE | DELETING | DELETED

## Errors

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

### **AccessDeniedException**

Access is denied. Your account is not authorized to perform this operation.

HTTP Status Code: 400

### **InternalServerError**

An unknown internal error occurred in the service.

HTTP Status Code: 500

## ThrottlingException

The user has exceeded their maximum number of allowed calls to the given API.

HTTP Status Code: 400

## ValidationException

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteFHIRDatastore

Delete a FHIR-enabled data store.

## Request Syntax

```
{
  "DatastoreId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [DatastoreId](#)

The AWS-generated identifier for the data store to be deleted.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: Yes

## Response Syntax

```
{
  "DatastoreArn": "string",
  "DatastoreEndpoint": "string",
  "DatastoreId": "string",
  "DatastoreStatus": "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.

### DatastoreArn

The Amazon Resource Name (ARN) that grants access permission to AWS HealthLake.

Type: String

Pattern: `^arn:aws((-us-gov)|(-iso)|(-iso-b)|(-cn))?:healthlake:[a-zA-Z0-9-]+:[0-9]{12}:datastore/.+?`

### DatastoreEndpoint

The AWS endpoint of the data store to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 5000.

Pattern: `[\P{M}\p{M}]{1,5000}`

### DatastoreId

The AWS-generated ID for the deleted data store.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_.:/+\\-%@]*)$`

### DatastoreStatus

The data store status.

Type: String

Valid Values: CREATING | ACTIVE | DELETING | DELETED

## Errors

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

### **AccessDeniedException**

Access is denied. Your account is not authorized to perform this operation.

HTTP Status Code: 400

### **ConflictException**

The data store is in a transition state and the user requested action cannot be performed.

HTTP Status Code: 400

### **InternalServerErrorException**

An unknown internal error occurred in the service.

HTTP Status Code: 500

### **ResourceNotFoundException**

The requested data store was not found.

HTTP Status Code: 400

### **ThrottlingException**

The user has exceeded their maximum number of allowed calls to the given API.

HTTP Status Code: 400

### **ValidationException**

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)



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

# DescribeFHIRDatastore

Get properties for a FHIR-enabled data store.

## Request Syntax

```
{
  "DatastoreId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### DatastoreId

The data store identifier.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot:/+=\-%@]*)\$$

Required: Yes

## Response Syntax

```
{
  "DatastoreProperties": {
    "CreatedAt": number,
    "DatastoreArn": "string",
    "DatastoreEndpoint": "string",
    "DatastoreId": "string",
    "DatastoreName": "string",
    "DatastoreStatus": "string",
    "DatastoreTypeVersion": "string",
    "IdentityProviderConfiguration": {
      "AuthorizationStrategy": "string",
```

```
    "FineGrainedAuthorizationEnabled": boolean,
    "IdpLambdaArn": "string",
    "Metadata": "string"
  },
  "PreloadDataConfig": {
    "PreloadDataType": "string"
  },
  "SseConfiguration": {
    "KmsEncryptionConfig": {
      "CmkType": "string",
      "KmsKeyId": "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.

### DatastoreProperties

The data store properties.

Type: [DatastoreProperties](#) object

## Errors

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

### InternalServerError

An unknown internal error occurred in the service.

HTTP Status Code: 500

### ResourceNotFoundException

The requested data store was not found.

HTTP Status Code: 400

## ThrottlingException

The user has exceeded their maximum number of allowed calls to the given API.

HTTP Status Code: 400

## ValidationException

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeFHIRExportJob

Get FHIR export job properties.

## Request Syntax

```
{  
  "DatastoreId": "string",  
  "JobId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### DatastoreId

The data store identifier from which FHIR data is being exported from.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]*)\$$

Required: Yes

### JobId

The export job identifier.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]*)\$$

Required: Yes

## Response Syntax

```
{
  "ExportJobProperties": {
    "DataAccessRoleArn": "string",
    "DatastoreId": "string",
    "EndTime": number,
    "JobId": "string",
    "JobName": "string",
    "JobStatus": "string",
    "Message": "string",
    "OutputDataConfig": { ... },
    "SubmitTime": 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.

### ExportJobProperties

The export job properties.

Type: [ExportJobProperties](#) object

## Errors

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

### **InternalServerError**

An unknown internal error occurred in the service.

HTTP Status Code: 500

### **ResourceNotFoundException**

The requested data store was not found.

HTTP Status Code: 400

### **ThrottlingException**

The user has exceeded their maximum number of allowed calls to the given API.

HTTP Status Code: 400

### **ValidationException**

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeFHIRImportJob

Get the import job properties to learn more about the job or job progress.

## Request Syntax

```
{  
  "DatastoreId": "string",  
  "JobId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### DatastoreId

The data store identifier.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]*)\$$

Required: Yes

### JobId

The import job identifier.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]*)\$$

Required: Yes



## Response Syntax

```
{
  "ImportJobProperties": {
    "DataAccessRoleArn": "string",
    "DatastoreId": "string",
    "EndTime": number,
    "InputDataConfig": { ... },
    "JobId": "string",
    "JobName": "string",
    "JobOutputDataConfig": { ... },
    "JobStatus": "string",
    "Message": "string",
    "SubmitTime": 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.

### ImportJobProperties

The import job properties.

Type: [ImportJobProperties](#) object

## Errors

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

### InternalServerError

An unknown internal error occurred in the service.

HTTP Status Code: 500

### ResourceNotFoundException

The requested data store was not found.

HTTP Status Code: 400

### **ThrottlingException**

The user has exceeded their maximum number of allowed calls to the given API.

HTTP Status Code: 400

### **ValidationException**

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListFHIRDatastores

List all FHIR-enabled data stores in a user's account, regardless of data store status.

## Request Syntax

```
{
  "Filter": {
    "CreatedAfter": number,
    "CreatedBefore": number,
    "DatastoreName": "string",
    "DatastoreStatus": "string"
  },
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Filter

List all filters associated with a FHIR data store request.

Type: [DatastoreFilter](#) object

Required: No

### MaxResults

The maximum number of data stores returned on a page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

### NextToken

The token used to retrieve the next page of data stores when results are paginated.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `\p{ASCII}{0,8192}`

Required: No

## Response Syntax

```
{
  "DatastorePropertiesList": [
    {
      "CreatedAt": number,
      "DatastoreArn": "string",
      "DatastoreEndpoint": "string",
      "DatastoreId": "string",
      "DatastoreName": "string",
      "DatastoreStatus": "string",
      "DatastoreTypeVersion": "string",
      "IdentityProviderConfiguration": {
        "AuthorizationStrategy": "string",
        "FineGrainedAuthorizationEnabled": boolean,
        "IdpLambdaArn": "string",
        "Metadata": "string"
      },
      "PreloadDataConfig": {
        "PreloadDataType": "string"
      },
      "SseConfiguration": {
        "KmsEncryptionConfig": {
          "CmkType": "string",
          "KmsKeyId": "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.

### DatastorePropertiesList

The properties associated with all listed data stores.

Type: Array of [DatastoreProperties](#) objects

### NextToken

The pagination token used to retrieve the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `\p{ASCII}{0,8192}`

## Errors

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

### **InternalServerError**

An unknown internal error occurred in the service.

HTTP Status Code: 500

### **ThrottlingException**

The user has exceeded their maximum number of allowed calls to the given API.

HTTP Status Code: 400

### **ValidationException**

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListFHIRExportJobs

Lists all FHIR export jobs associated with an account and their statuses.

## Request Syntax

```
{
  "DatastoreId": "string",
  "JobName": "string",
  "JobStatus": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SubmittedAfter": number,
  "SubmittedBefore": number
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### DatastoreId

Limits the response to the export job with the specified data store ID.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot : / = + \backslash - \% @] *)\$$

Required: Yes

### JobName

Limits the response to the export job with the specified job name.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot : / = + \backslash - \% @] *)\$$

Required: No

### JobStatus

Limits the response to export jobs with the specified job status.

Type: String

Valid Values: SUBMITTED | IN\_PROGRESS | COMPLETED\_WITH\_ERRORS | COMPLETED | FAILED | CANCEL\_SUBMITTED | CANCEL\_IN\_PROGRESS | CANCEL\_COMPLETED | CANCEL\_FAILED

Required: No

### MaxResults

Limits the number of results returned for a ListFHIRExportJobs to a maximum quantity specified by the user.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

### NextToken

A pagination token used to identify the next page of results to return.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: \p{ASCII}{0,8192}

Required: No

### SubmittedAfter

Limits the response to FHIR export jobs submitted after a user-specified date.

Type: Timestamp

Required: No



## SubmittedBefore

Limits the response to FHIR export jobs submitted before a user- specified date.

Type: Timestamp

Required: No

## Response Syntax

```
{
  "ExportJobPropertiesList": [
    {
      "DataAccessRoleArn": "string",
      "DatastoreId": "string",
      "EndTime": number,
      "JobId": "string",
      "JobName": "string",
      "JobStatus": "string",
      "Message": "string",
      "OutputDataConfig": { ... },
      "SubmitTime": number
    }
  ],
  "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.

### ExportJobPropertiesList

The properties of listed FHIR export jobs.

Type: Array of [ExportJobProperties](#) objects

### NextToken

The pagination token used to identify the next page of results to return.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `\p{ASCII}{0,8192}`

## Errors

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

### AccessDeniedException

Access is denied. Your account is not authorized to perform this operation.

HTTP Status Code: 400

### InternalServerError

An unknown internal error occurred in the service.

HTTP Status Code: 500

### ResourceNotFoundException

The requested data store was not found.

HTTP Status Code: 400

### ThrottlingException

The user has exceeded their maximum number of allowed calls to the given API.

HTTP Status Code: 400

### ValidationException

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListFHIRImportJobs

List all FHIR import jobs associated with an account and their statuses.

## Request Syntax

```
{
  "DatastoreId": "string",
  "JobName": "string",
  "JobStatus": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SubmittedAfter": number,
  "SubmittedBefore": number
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### DatastoreId

Limits the response to the import job with the specified data store ID.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]*)\$$

Required: Yes

### JobName

Limits the response to the import job with the specified job name.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]*)\$$

Required: No

### JobStatus

Limits the response to the import job with the specified job status.

Type: String

Valid Values: SUBMITTED | IN\_PROGRESS | COMPLETED\_WITH\_ERRORS | COMPLETED | FAILED | CANCEL\_SUBMITTED | CANCEL\_IN\_PROGRESS | CANCEL\_COMPLETED | CANCEL\_FAILED

Required: No

### MaxResults

Limits the number of results returned for `ListFHIRImportJobs` to a maximum quantity specified by the user.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

### NextToken

The pagination token used to identify the next page of results to return.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `\p{ASCII}{0,8192}`

Required: No

### SubmittedAfter

Limits the response to FHIR import jobs submitted after a user-specified date.

Type: Timestamp

Required: No

## SubmittedBefore

Limits the response to FHIR import jobs submitted before a user- specified date.

Type: Timestamp

Required: No

## Response Syntax

```
{
  "ImportJobPropertiesList": [
    {
      "DataAccessRoleArn": "string",
      "DatastoreId": "string",
      "EndTime": number,
      "InputDataConfig": { ... },
      "JobId": "string",
      "JobName": "string",
      "JobOutputDataConfig": { ... },
      "JobStatus": "string",
      "Message": "string",
      "SubmitTime": number
    }
  ],
  "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.

### ImportJobPropertiesList

The properties for listed import jobs.

Type: Array of [ImportJobProperties](#) objects

### NextToken

The pagination token used to identify the next page of results to return.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `\p{ASCII}{0,8192}`

## Errors

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

### AccessDeniedException

Access is denied. Your account is not authorized to perform this operation.

HTTP Status Code: 400

### InternalServerError

An unknown internal error occurred in the service.

HTTP Status Code: 500

### ResourceNotFoundException

The requested data store was not found.

HTTP Status Code: 400

### ThrottlingException

The user has exceeded their maximum number of allowed calls to the given API.

HTTP Status Code: 400

### ValidationException

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListTagsForResource

Returns a list of all existing tags associated with a data store.

## Request Syntax

```
{
  "ResourceARN": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ResourceARN

The Amazon Resource Name (ARN) of the data store to which tags are being added.

Type: String

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

Pattern: `^arn:aws((-us-gov)|(-iso)|(-iso-b)|(-cn))?:healthlake:[a-z0-9-]+:\d{12}:datastore\/fhir\/.{32}`

Required: Yes

## Response Syntax

```
{
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Response Elements

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

The following data is returned in JSON format by the service.

### Tags

Returns a list of tags associated with a data store.

Type: Array of [Tag](#) objects

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

## Errors

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

### **ResourceNotFoundException**

The requested data store was not found.

HTTP Status Code: 400

### **ValidationException**

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)

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

# StartFHIRExportJob

Start a FHIR export job.

## Request Syntax

```
{
  "ClientToken": "string",
  "DataAccessRoleArn": "string",
  "DatastoreId": "string",
  "JobName": "string",
  "OutputDataConfig": { ... }
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ClientToken

An optional user provided token used for ensuring API idempotency.

Type: String

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

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

Required: Yes

### DataAccessRoleArn

The Amazon Resource Name (ARN) used during initiation of the export job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws(-[^\:]+)?:iam:[0-9]{12}:role/.+`

Required: Yes

### DatastoreId

The data store identifier from which files are being exported.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]*)\$$

Required: Yes

### JobName

The export job name.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]*)\$$

Required: No

### OutputDataConfig

The output data configuration supplied when the export job was started.

Type: [OutputDataConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

## Response Syntax

```
{
  "DatastoreId": "string",
  "JobId": "string",
  "JobStatus": "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.

### DatastoreId

The data store identifier from which files are being exported.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_ . :/=+\-%@]*)$`

### JobId

The export job identifier.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_ . :/=+\-%@]*)$`

### JobStatus

The export job status.

Type: String

Valid Values: SUBMITTED | IN\_PROGRESS | COMPLETED\_WITH\_ERRORS | COMPLETED | FAILED | CANCEL\_SUBMITTED | CANCEL\_IN\_PROGRESS | CANCEL\_COMPLETED | CANCEL\_FAILED

## Errors

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

### **AccessDeniedException**

Access is denied. Your account is not authorized to perform this operation.

HTTP Status Code: 400

### **InternalServerErrorException**

An unknown internal error occurred in the service.

HTTP Status Code: 500

### **ResourceNotFoundException**

The requested data store was not found.

HTTP Status Code: 400

### **ThrottlingException**

The user has exceeded their maximum number of allowed calls to the given API.

HTTP Status Code: 400

### **ValidationException**

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartFHIRImportJob

Start importing bulk FHIR data into an ACTIVE data store. The import job imports FHIR data found in the `InputDataConfig` object and stores processing results in the `JobOutputDataConfig` object.

## Request Syntax

```
{
  "ClientToken": "string",
  "DataAccessRoleArn": "string",
  "DatastoreId": "string",
  "InputDataConfig": { ... },
  "JobName": "string",
  "JobOutputDataConfig": { ... }
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ClientToken

The optional user-provided token used for ensuring API idempotency.

Type: String

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

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

Required: Yes

### DataAccessRoleArn

The Amazon Resource Name (ARN) that grants access permission to AWS HealthLake.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.



Pattern: `arn:aws(-[^\:]+)?:iam::[0-9]{12}:role/.+`

Required: Yes

### DatastoreId

The data store identifier.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: Yes

### InputDataConfig

The input properties for the import job request.

Type: [InputDataConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

### JobName

The import job name.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

### JobOutputDataConfig

The output data configuration supplied when the export job was created.

Type: [OutputDataConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

## Response Syntax

```
{
  "DatastoreId": "string",
  "JobId": "string",
  "JobStatus": "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.

### DatastoreId

The data store identifier.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]*)\$$

### JobId

The import job identifier.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]*)\$$

### JobStatus

The import job status.

Type: String

Valid Values: SUBMITTED | IN\_PROGRESS | COMPLETED\_WITH\_ERRORS | COMPLETED | FAILED | CANCEL\_SUBMITTED | CANCEL\_IN\_PROGRESS | CANCEL\_COMPLETED | CANCEL\_FAILED

## Errors

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

### **AccessDeniedException**

Access is denied. Your account is not authorized to perform this operation.

HTTP Status Code: 400

### **InternalServerErrorException**

An unknown internal error occurred in the service.

HTTP Status Code: 500

### **ResourceNotFoundException**

The requested data store was not found.

HTTP Status Code: 400

### **ThrottlingException**

The user has exceeded their maximum number of allowed calls to the given API.

HTTP Status Code: 400

### **ValidationException**

The user input parameter was invalid.

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 v2](#)

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

# TagResource

Add a user-specified key and value tag to a data store.

## Request Syntax

```
{
  "ResourceARN": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [ResourceARN](#)

The Amazon Resource Name (ARN) that grants access to the data store tags are being added to.

Type: String

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

Pattern: `^arn:aws((-us-gov)|(-iso)|(-iso-b)|(-cn))?:healthlake:[a-z0-9-]+:\d{12}:datastore\/fhir\/.{32}`

Required: Yes

### [Tags](#)

The user-specified key and value pair tags being added to a data store.

Type: Array of [Tag](#) objects

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

Required: Yes

## 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](#).

### ResourceNotFoundException

The requested data store was not found.

HTTP Status Code: 400

### ValidationException

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UntagResource

Remove a user-specified key and value tag from a data store.

## Request Syntax

```
{
  "ResourceARN": "string",
  "TagKeys": [ "string" ]
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ResourceARN

The Amazon Resource Name (ARN) of the data store from which tags are being removed.

Type: String

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

Pattern: `^arn:aws((-us-gov)|(-iso)|(-iso-b)|(-cn))?:healthlake:[a-z0-9-]+:\d{12}:datastore\/fhir\/.{32}`

Required: Yes

### TagKeys

The keys for the tags to be removed from the data store.

Type: Array of strings

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

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

Pattern: `^(([\p{L}\p{Z}\p{N}_.:\/=+\-@]*)$`

Required: Yes

## 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](#).

### ResourceNotFoundException

The requested data store was not found.

HTTP Status Code: 400

### ValidationException

The user input parameter was invalid.

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 v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# Data Types

The Amazon HealthLake 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:

- [DatastoreFilter](#)
- [DatastoreProperties](#)
- [ExportJobProperties](#)
- [IdentityProviderConfiguration](#)
- [ImportJobProperties](#)
- [InputDataConfig](#)
- [KmsEncryptionConfig](#)
- [OutputDataConfig](#)
- [PreloadDataConfig](#)
- [S3Configuration](#)
- [SseConfiguration](#)
- [Tag](#)

# DatastoreFilter

The filters applied to a data store query.

## Contents

### CreatedAfter

Filter to set cutoff dates for records. All data stores created after the specified date are included in the results.

Type: Timestamp

Required: No

### CreatedBefore

Filter to set cutoff dates for records. All data stores created before the specified date are included in the results.

Type: Timestamp

Required: No

### DatastoreName

Filter data store results by name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

### DatastoreStatus

Filter data store results by status.

Type: String

Valid Values: CREATING | ACTIVE | DELETING | DELETED

Required: No

## See Also

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

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

# DatastoreProperties

The data store properties.

## Contents

### DatastoreArn

The Amazon Resource Name (ARN) used in the creation of the data store.

Type: String

Pattern: `^arn:aws((-us-gov)|(-iso)|(-iso-b)|(-cn))?:healthlake:[a-zA-Z0-9-]+:[0-9]{12}:datastore/.+?`

Required: Yes

### DatastoreEndpoint

The AWS endpoint for the data store.

Type: String

Length Constraints: Maximum length of 10000.

Pattern: `[\P{M}\p{M}]{0,10000}`

Required: Yes

### DatastoreId

The data store identifier.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_ . : / = + \ - % @] *)$`

Required: Yes

### DatastoreStatus

The data store status.

Type: String

Valid Values: CREATING | ACTIVE | DELETING | DELETED

Required: Yes

### **DatastoreTypeVersion**

The FHIR release version supported by the data store. Current support is for version R4.

Type: String

Valid Values: R4

Required: Yes

### **CreatedAt**

The time the data store was created.

Type: Timestamp

Required: No

### **DatastoreName**

The data store name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

### **IdentityProviderConfiguration**

The identity provider selected during data store creation.

Type: [IdentityProviderConfiguration](#) object

Required: No

### **PreloadDataConfig**

The preloaded Synthea data configuration for the data store.

Type: [PreloadDataConfig](#) object

Required: No

## SseConfiguration

The server-side encryption key configuration for a customer provided encryption key.

Type: [SseConfiguration](#) object

Required: No

## See Also

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

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

# ExportJobProperties

The properties of a FHIR export job.

## Contents

### DatastoreId

The data store identifier from which files are being exported.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]^\ast)\$$

Required: Yes

### JobId

The export job identifier.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-%@]^\ast)\$$

Required: Yes

### JobStatus

The export job status.

Type: String

Valid Values: SUBMITTED | IN\_PROGRESS | COMPLETED\_WITH\_ERRORS | COMPLETED | FAILED | CANCEL\_SUBMITTED | CANCEL\_IN\_PROGRESS | CANCEL\_COMPLETED | CANCEL\_FAILED

Required: Yes

### OutputDataConfig

The output data configuration supplied when the export job was created.

Type: [OutputDataConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

### SubmitTime

The time the export job was initiated.

Type: Timestamp

Required: Yes

### DataAccessRoleArn

The Amazon Resource Name (ARN) used during the initiation of the export job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws(-[^\:]+)?:iam:[0-9]{12}:role/.+`

Required: No

### EndTime

The time the export job completed.

Type: Timestamp

Required: No

### JobName

The export job name.

Type: String

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

Pattern: `^[^\p{L}\p{Z}\p{N}_\.:/+\\-%@]*$`

Required: No



## Message

An explanation of any errors that might have occurred during the export job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^[^\p{L}\p{Z}\p{N}_ . : / = + \ - % @ ] * ) $`

Required: No

## See Also

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

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

# IdentityProviderConfiguration

The identity provider configuration selected when the data store was created.

## Contents

### AuthorizationStrategy

The authorization strategy selected when the data store was created.

Type: String

Valid Values: SMART\_ON\_FHIR\_V1 | AWS\_AUTH

Required: Yes

### FineGrainedAuthorizationEnabled

The parameter to enable SMART on FHIR fine-grained authorization for the data store.

Type: Boolean

Required: No

### IdpLambdaArn

The Amazon Resource Name (ARN) of the Lambda function to use to decode the access token created by the authorization server.

Type: String

Length Constraints: Minimum length of 49. Maximum length of 256.

Pattern: `arn:aws:lambda:[a-z]{2}-[a-z]+-\d{1}:\d{12}:function:[a-zA-Z0-9\-\_\.\.]+(:(\$\{LATEST|[a-zA-Z0-9\-\_\.\.]+))?`

Required: No

### Metadata

The JSON metadata elements to use in your identity provider configuration. Required elements are listed based on the launch specification of the SMART application. For more information on all possible elements, see [Metadata](#) in SMART's App Launch specification.

`authorization_endpoint`: The URL to the OAuth2 authorization endpoint.

`grant_types_supported`: An array of grant types that are supported at the token endpoint. You must provide at least one grant type option. Valid options are `authorization_code` and `client_credentials`.

`token_endpoint`: The URL to the OAuth2 token endpoint.

`capabilities`: An array of strings of the SMART capabilities that the authorization server supports.

`code_challenge_methods_supported`: An array of strings of supported PKCE code challenge methods. You must include the S256 method in the array of PKCE code challenge methods.

Type: String

Required: No

## See Also

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

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

# ImportJobProperties

The import job properties.

## Contents

### DatastoreId

The data store identifier.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\p{-}:/=+\-%@] *)\$$

Required: Yes

### InputDataConfig

The input data configuration supplied when the import job was created.

Type: [InputDataConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

### JobId

The import job identifier.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\p{-}:/=+\-%@] *)\$$

Required: Yes

### JobStatus

The import job status.

Type: String

Valid Values: SUBMITTED | IN\_PROGRESS | COMPLETED\_WITH\_ERRORS | COMPLETED | FAILED | CANCEL\_SUBMITTED | CANCEL\_IN\_PROGRESS | CANCEL\_COMPLETED | CANCEL\_FAILED

Required: Yes

### **SubmitTime**

The time the import job was submitted for processing.

Type: Timestamp

Required: Yes

### **DataAccessRoleArn**

The Amazon Resource Name (ARN) that grants AWS HealthLake access to the input data.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws(-[^:]+)?:iam::[0-9]{12}:role/.+`

Required: No

### **EndTime**

The time the import job was completed.

Type: Timestamp

Required: No

### **JobName**

The import job name.

Type: String

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

Pattern: `^([\p{L}\p{Z}\p{N}_ . : / = + \ - % @] *)$`

Required: No

## JobOutputDataConfig

The output data configuration supplied when the export job was created.

Type: [OutputDataConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: No

## Message

An explanation of any errors that might have occurred during the FHIR import job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-%@]*)$`

Required: No

## See Also

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

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

# InputDataConfig

The import job input properties.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## S3Uri

The `S3Uri` is the user-specified S3 location of the FHIR data to be imported into AWS HealthLake.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `s3://[a-z0-9][\.\-a-z0-9]{1,61}[a-z0-9](/.*)?`

Required: No

## See Also

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

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

# KmsEncryptionConfig

The customer-managed-key (CMK) used when creating a data store. If a customer-owned key is not specified, an AWS-owned key is used for encryption.

## Contents

### CmkType

The type of customer-managed-key (CMK) used for encryption.

Type: String

Valid Values: CUSTOMER\_MANAGED\_KMS\_KEY | AWS\_OWNED\_KMS\_KEY

Required: Yes

### KmsKeyId

The Key Management Service (KMS) encryption key id/alias used to encrypt the data store contents at rest.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 400.

Pattern: (arn:aws((-us-gov)|(-iso)|(-iso-b)|(-cn))?:kms:)?([a-z]{2}-[a-z]+(-[a-z]+)?-\d:)?(\d{12}:)?(((key/)?[a-zA-Z0-9-\_\+] )|(alias/[a-zA-Z0-9:/\_-]+))

Required: No

## See Also

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

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





# OutputDataConfig

The output data configuration supplied when the export job was created.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## S3Configuration

The output data configuration supplied when the export job was created.

Type: [S3Configuration](#) object

Required: No

## See Also

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

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

# PreloadDataConfig

The input properties for the preloaded (Synthea) data store.

## Contents

### PreloadDataType

The type of preloaded data. Only Synthea preloaded data is supported.

Type: String

Valid Values: SYNTHEA

Required: Yes

## See Also

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

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

# S3Configuration

The configuration of the S3 bucket for either an import or export job. This includes assigning access permissions.

## Contents

### KmsKeyId

The Key Management Service (KMS) key ID used to access the S3 bucket.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 400.

Pattern: (arn:aws((-us-gov)|(-iso)|(-iso-b)|(-cn))?:kms:)?([a-z]{2}-[a-z]+(-[a-z]+)?-\d:)?(\d{12}:)?(((key/)?[a-zA-Z0-9-\_.]+)|(alias/[a-zA-Z0-9:/\_-]+))

Required: Yes

### S3Uri

The S3Uri is the user-specified S3 location of the FHIR data to be imported into AWS HealthLake.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: s3://[a-z0-9][\.\-a-z0-9]{1,61}[a-z0-9](/\*.\*)?

Required: Yes

## See Also

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

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

- [AWS SDK for Ruby V3](#)

# SseConfiguration

The server-side encryption key configuration for a customer-provided encryption key.

## Contents

### KmsEncryptionConfig

The Key Management Service (KMS) encryption configuration used to provide details for data encryption.

Type: [KmsEncryptionConfig](#) object

Required: Yes

## See Also

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

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

# Tag

A label consisting of a user-defined key and value. The form for tags is {"Key", "Value"}

## Contents

### Key

The key portion of a tag. Tag keys are case sensitive.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\p{-}:/=+\-@]^*)\$$

Required: Yes

### Value

The value portion of a tag. Tag values are case-sensitive.

Type: String

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

Pattern:  $^([\p{L}\p{Z}\p{N}_\p{-}:/=+\-@]^*)\$$

Required: Yes

## See Also

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

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

# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signing AWS API requests](#) in the *IAM User Guide*.

## 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 [Create a signed AWS API request](#) in the *IAM User Guide*.

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

Type: string

Required: Conditional

### **X-Amz-Date**

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Elements of an AWS API request signature](#) in the *IAM User Guide*.

Type: string

Required: Conditional

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

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

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

Type: string

Required: Conditional

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

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

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

Type: string

Required: Conditional

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

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Create a signed AWS API request](#) in the *IAM User Guide*.

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

Type: string

Required: Conditional

# Common 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

## **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