



API Reference

# AWS HealthLake



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# AWS HealthLake: API Reference

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# Welcome

AWS HealthLake is a HIPAA eligible service that allows customers to store, transform, query, and analyze their FHIR-formatted data in a consistent fashion in the cloud.

This document was last published on July 4, 2024.

# Actions

The following actions are supported:

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



# CreateFHIRDatastore

Creates a data store that can ingest and export FHIR formatted data.

## 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

Optional user provided token used for ensuring idempotency.

Type: String

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

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

Required: No

### DatastoreName

The user generated name for the data store.

Type: String

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

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

Required: No

### DatastoreTypeVersion

The FHIR version of the data store. The only supported version is R4.

Type: String

Valid Values: R4

Required: Yes

### IdentityProviderConfiguration

The configuration of the identity provider that you want to use for your data store.

Type: [IdentityProviderConfiguration](#) object

Required: No

### PreloadDataConfig

Optional parameter to preload data upon creation of the data store. Currently, the only supported preloaded data is synthetic data generated from Synthea.

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

Resource tags that are 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 data store ARN is generated during the creation of the data store and can be found in the output from the initial data store creation call.

Type: String

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

## DatastoreEndpoint

The AWS endpoint for the created data store.

Type: String

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

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

## DatastoreId

The AWS-generated data store id. This id is in the output from the initial data store creation call.

Type: String

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

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

## DatastoreStatus

The status of the FHIR data store.

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**

Unknown error occurs 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

Deletes a 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 ID 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 gives AWS HealthLake access permission.

Type: String

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

### DatastoreEndpoint

The AWS endpoint for the data store the user has requested 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 data store to be deleted.

Type: String

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

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

### DatastoreStatus

The status of the data store that the user has requested to be deleted.

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 can not be performed.

HTTP Status Code: 400

### **InternalServerErrorException**

Unknown error occurs 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

Gets the properties associated with the FHIR data store, including the data store ID, data store ARN, data store name, data store status, when the data store was created, data store type version, and the data store's endpoint.

## 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 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

## 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

All properties associated with a data store, including the data store ID, data store ARN, data store name, data store status, when the data store was created, data store type version, and the data store's endpoint.

Type: [DatastoreProperties](#) object

## Errors

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

### InternalServerErrorException

Unknown error occurs 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

Displays the properties of a FHIR export job, including the ID, ARN, name, and the status of the job.

## 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 AWS generated ID for the data store from which files are being exported from for an export job.

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 AWS generated ID for an export job.

Type: String

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

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

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

Displays the properties of the export job, including the ID, Arn, Name, and the status of the job.

Type: [ExportJobProperties](#) object

## Errors

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

### InternalServerError

Unknown error occurs 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

Displays the properties of a FHIR import job, including the ID, ARN, name, and the status of the job.

## 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 AWS-generated ID of the data store.

Type: String

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

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

Required: Yes

### JobId

The AWS-generated job ID.

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 properties of the Import job request, including the ID, ARN, name, and the status of the job.

Type: [ImportJobProperties](#) object

## Errors

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

### InternalServerError

Unknown error occurs 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

Lists all FHIR data stores that are in the 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

Lists all filters associated with a FHIR data store request.

Type: [DatastoreFilter](#) object

Required: No

### MaxResults

The maximum number of data stores returned in a single page of a ListFHIRDatastoresRequest call.

Type: Integer

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

Required: No

## NextToken

Fetches 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](#)

All properties associated with the listed data stores.

Type: Array of [DatastoreProperties](#) objects

### [NextToken](#)

Pagination token that can be 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](#).

### **InternalServerErrorException**

Unknown error occurs 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

This parameter 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

This parameter 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

This parameter limits the response to the 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

This parameter 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 for a ListFHIRExportJobs query.

Type: String

Length Constraints: Maximum length of 8192.

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

Required: No

### SubmittedAfter

This parameter limits the response to FHIR export jobs submitted after a user specified date.

Type: Timestamp

Required: No



## SubmittedBefore

This parameter 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, including the ID, ARN, name, and the status of the job.

Type: Array of [ExportJobProperties](#) objects

### NextToken

A pagination token used to identify the next page of results to return for a ListFHIRExportJobs query.

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

Unknown error occurs 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

Lists 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

This parameter 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

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

Required: No

### JobStatus

This parameter 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

This parameter limits the number of results returned for a ListFHIRImportJobs 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 for a ListFHIRImportJobs query.

Type: String

Length Constraints: Maximum length of 8192.

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

Required: No

### SubmittedAfter

This parameter limits the response to FHIR import jobs submitted after a user specified date.

Type: Timestamp

Required: No

### SubmittedBefore

This parameter 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 of a listed FHIR import jobs, including the ID, ARN, name, and the status of the job.

Type: Array of [ImportJobProperties](#) objects

## NextToken

A pagination token used to identify the next page of results to return for a ListFHIRImportJobs query.

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

### **InternalServerErrorException**

Unknown error occurs 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 for 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

Begins 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 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 used during the initiation of the 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 AWS generated ID for the data store from which files are being exported for an export job.

Type: String

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

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

Required: Yes

### JobName

The user generated name for an export job.

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 that was 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 AWS generated ID for the data store from which files are being exported for an export job.

Type: String

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

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

### JobId

The AWS generated ID for an export job.

Type: String

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

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

### JobStatus

The status of a FHIR export job. Possible statuses are SUBMITTED, IN\_PROGRESS, COMPLETED, or FAILED.

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**

Unknown error occurs 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

Begins a FHIR Import job.

## 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

Optional user provided token used for ensuring 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 gives AWS HealthLake access permission.

Type: String

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

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



Required: Yes

### DatastoreId

The AWS-generated 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

### InputDataConfig

The input properties of the FHIR Import job in the StartFHIRImport 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 name of the FHIR Import job in the StartFHIRImport job request.

Type: String

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

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

Required: No

### JobOutputDataConfig

The output data configuration that was 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 AWS-generated data store ID.

Type: String

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

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

### JobId

The AWS-generated job ID.

Type: String

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

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

### JobStatus

The status of an import job.

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**

Unknown error occurs 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

Adds 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 gives AWS HealthLake access to the data store which 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

Removes tags 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 for 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 HealthLake 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 data store query.

## Contents

### CreatedAfter

A filter that allows the user to set cutoff dates for records. All data stores created after the specified date will be included in the results.

Type: Timestamp

Required: No

### CreatedBefore

A filter that allows the user to set cutoff dates for records. All data stores created before the specified date will be included in the results.

Type: Timestamp

Required: No

### DatastoreName

Allows the user to filter data store results by name.

Type: String

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

Pattern: `^[a-zA-Z0-9_./=+\-%@]*$`

Required: No

### DatastoreStatus

Allows the user to 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

Displays the properties of the data store, including the ID, ARN, name, and the status of the data store.

## Contents

### DatastoreArn

The Amazon Resource Name 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. Each data store will have its own endpoint with data store ID in the endpoint URL.

Type: String

Length Constraints: Maximum length of 10000.

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

Required: Yes

### DatastoreId

The AWS-generated ID number for the data store.

Type: String

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

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

Required: Yes

## DatastoreStatus

The status of the data store.

Type: String

Valid Values: CREATING | ACTIVE | DELETING | DELETED

Required: Yes

## DatastoreTypeVersion

The FHIR version. Only R4 version data is supported.

Type: String

Valid Values: R4

Required: Yes

## CreatedAt

The time that a data store was created.

Type: Timestamp

Required: No

## DatastoreName

The user-generated name for the data store.

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 that you selected when you created the data store.

Type: [IdentityProviderConfiguration](#) object

Required: No

## PreloadDataConfig

The preloaded data configuration for the data store. Only data preloaded from Synthea is supported.

Type: [PreloadDataConfig](#) object

Required: No

## SseConfiguration

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

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, including the ID, ARN, name, and the status of the job.

## Contents

### DatastoreId

The AWS generated ID for the data store from which files are being exported for an export job.

Type: String

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

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

Required: Yes

### JobId

The AWS generated ID for an export job.

Type: String

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

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

Required: Yes

### JobStatus

The status of a FHIR export job. Possible statuses are SUBMITTED, IN\_PROGRESS, COMPLETED, or FAILED.

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 that was 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 an export job was initiated.

Type: Timestamp

Required: Yes

## DataAccessRoleArn

The Amazon Resource Name used during the initiation of the 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 an export job completed.

Type: Timestamp

Required: No

## JobName

The user generated name for an export job.

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 may 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 that you gave when the data store was created.

## Contents

### AuthorizationStrategy

The authorization strategy that you selected when you created the data store.

Type: String

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

Required: Yes

### FineGrainedAuthorizationEnabled

If you enabled fine-grained authorization when you created the data store.

Type: Boolean

Required: No

### IdpLambdaArn

The Amazon Resource Name (ARN) of the Lambda function that you want 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 that you want 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

Displays the properties of the import job, including the ID, Arn, Name, and the status of the data store.

## Contents

### DatstoreId

The datastore id used when the Import job was created.

Type: String

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

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

Required: Yes

### InputDataConfig

The input data configuration that was 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 AWS-generated id number for the Import job.

Type: String

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

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

Required: Yes

### JobStatus

The job status for an Import job. Possible statuses are SUBMITTED, IN\_PROGRESS, COMPLETED\_WITH\_ERRORS, COMPLETED, FAILED.

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 that the Import job was submitted for processing.

Type: Timestamp

Required: Yes

### **DataAccessRoleArn**

The Amazon Resource Name (ARN) that gives AWS HealthLake access to your 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 that the Import job was completed.

Type: Timestamp

Required: No

### **JobName**

The user-generated name for an Import job.

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 that was 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 may 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 input properties for an import job.

## 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 will be used for encryption.

## Contents

### CmkType

The type of customer-managed-key(CMK) used for encryption. The two types of supported CMKs are customer owned CMKs and AWS owned CMKs.

Type: String

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

Required: Yes

### KmsKeyId

The 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 that was 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 that was 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 data store. Only data preloaded from Synthea is supported.

## 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 permissions for access.

## Contents

### KmsKeyId

The 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 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 tag is 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