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# ECCnet Outbound API

## Technical Reference

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# 1 Introduction

This document defines the GS1 Canada Representational State Transfer (REST) API for content access. The intended audience is developers and architects for client implementations.

## 1.1 Purpose of ECCnet Outbound API

The purpose of GS1 Canada ECCnet Outbound API is to enable client applications to access GS1 Canada product content data bundles from one or more Industry Managed Services through a simple, standard mechanism. Using the REST API, a client application can request content for new or updated products, and export product content details, and report export status.

The REST API is NOT built for extracting the entire product catalogue. Data recipients who require a database of all available products should contact their GS1 Canada representative for a consultation session to meet those needs.

The scope of content available are listed below:

1. New Item Setup content (ECCnet product content)
  - a. Planogram images and product dimension attributes
  - b. Foodservice montage images
2. eCommerce images and attributes (on-pack data)
3. Certified nutritional content
4. Certified pharmaceutical content
5. Planogram images and product dimension attributes
6. Marketing images and product dimension attributes
7. Foodservice images and attributes
8. Enhanced Assets content

## 1.2 Design Overview

The web service uses REST architecture. It is designed to be flexible and scalable in order to enable easier evolution for the service and minimize the change impact on the client side.

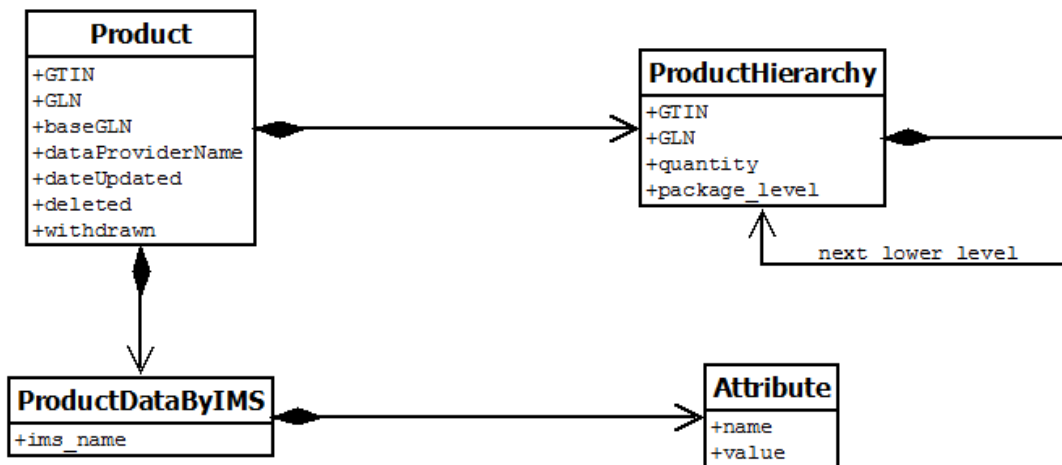
REST APIs use Hypertext Transfer Protocol Secure (HTTPS) HTTPS for all communications. A client can access a resource using the unique Uniform Resource Identifier (URI), and a representation of the resource is returned. All resources are accessed with standard HTTP operations, GET, POST, PUT, and DELETE. The requests and responses to the REST endpoint use the JavaScript Object Notation (JSON) for formatting the content and structure of the data and responses.

HTTPS is used to provide encrypted communication and secure identification of the web server. HTTP traffic, by default, is sent in the clear, meaning anyone with the ability to sniff

network traffic can potentially see sensitive information flowing to or from a REST endpoint. To provide data security, GS1 Canada REST API uses Secure Sockets Layer (SSL) transport layer security.

## 2 Resource Data Model

The key resource in GS1 Canada REST API is Product. When retrieved through REST API, a product contains both product data and packaging hierarchy.



### 2.1 Product

**GLN** (Global Location Number) is the unique identifier of the party providing the information of a product.

Each product is assigned a Global Trade Item Number (**GTIN**) by its information provider. It can be 12-, 13-, or 14-digits.

**dateUpdated** is when a product was last updated by the information provider.

**deleted** is a flag that indicates whether or not a product has been deleted by its information provider.

**withdrawn** is a flag that indicates whether or not a product has been withdrawn from a data recipient by its information provider. Once a product is withdrawn or deleted, the data recipient will no longer receive any new updates of the product. As the result, the product data of a withdrawn or deleted product has not IMS content.

JSON Example of a Product Object

```

{
  "identification": {
    "productType": "EA",
    "gtin": "7540157810020",
    "gtin14": "07540157810020",
    "targetMarketCountryCode": "124",
  }
}
  
```



```

    "catalogueGln": "0068780850147",
    "dataProviderName": "GS1 Canada - Provider",
    "gpc": "10000654",
    "gpcDescription": "Pet Care/Food Variety Packs"
  },
  "productHierarchy": {...},
  "newItemSetup": [{...}],
  "eCommerceContent": [{...}],
  "nutritionalContent": [{...}],
  "enhancedAssetContent": [{...}]
}

```

## 2.2 Product Hierarchy

A product hierarchy represents a top-down packaging structure. Each hierarchy node contains a GTIN, the package level, the number of products contained in a higher level package, and a collection of next lower level hierarchy nodes.

When a product is retrieved through REST API, product hierarchy includes the product and all products that are packaged inside the product. In other words, it contains the hierarchy information about children and grandchildren of the product.

The top-level hierarchy node always refers to the product to be retrieved, and the quantity of the top level is always set to 1.

### JSON Example of a Product Hierarchy

```

{
  "gtin": "10041120160004",
  "gln": "0068780070934",
  "quantity": 1,
  "packageLevel": "CA",
  "nextLowerLevels": [
    {
      "gtin": "033457900555",
      "gln": "0068780070934",
      "quantity": 10,
      "packageLevel": "EA"
    },
    {
      "gtin": "011420160175",
      "gln": "0068780070934",
      "quantity": 10,
      "packageLevel": "EA"
    }
  ]
}

```

## 2.3 Product Data

Product data includes various data bundles as defined in the Attribute Guide. It is represented as a map of <ims, attributes>. Each GTIN is mapped to a collection of attributes, which are pairs <attribute name, value>. For details on attributes, see "2.4 Attributes" (page 11).

### JSON Example of Product Data

```
"newItemSetup": [{
  "productType": "EA",
  "brand": "GS1 Canada",
  "shortDescriptionEnglish": "GS1 Canada Milk Chocolate Salted Ca",
  "size": "90",
  "sizeUOM": "GR", }],

"eCommerceContent": [{
  "identification": {
    "dateUpdated": "2019-03-27T17:00:44.393-04:00",
    "gln": "0068780850147",
    "gtin": "07540157810013",
    "ecommerceStatusNutritionStatus": "Certified",
    "systemVersion": "2018-05-08T14:37:42.000-04:00"
  },
  "brandNameEnglish": "GS1 Canada",
  "brandNameFrench": "GS1 Canada",
  "netContentEnglish": "90 g",
  "netContentFrench": "90 g",
  ...
}],

"nutritionalContent": [{
  "identification": {
    "dateUpdated": "2019-03-27T17:00:44.393-04:00",
    "gln": "0068780850147",
    "gtin": "07540157810013",
    "ecommerceStatusNutritionStatus": "Certified",
    "systemVersion": "2018-05-10T12:32:42.000-04:00"
  },
  "nutritionAndIngredients": [ ... ],
  "productNameEnglish": "GS1 Canada Milk Chocolate Salted Caramel 90 g",
  "productNameFrench": "GS1 Canada Chocolat au Lait Caramel Salé 90 g",
  ...
}],

"enhancedAssetContent": [{
  "identification": {
    "excellenceLevel": "3",
  },
  "digitalEnhancedAsset": [ ... ]
  ...
}]
```

## 2.4 Attributes

Product attributes are represented as <name, value> pairs.

Attribute names are ASCII strings. They are documented in the Attribute Guide that accompanies this document. The attributes presented in this document are for demonstration purposes. For accurate definitions, please refer to the Attribute Guide.

Attribute value is a generic object that can be used to represent any value. It can be a single value, an array of values of the same type, or a group of values of various types.

### Single Value

A single value is represented as a string object. The following tables show how various types of attributes are formatted. The attribute type can be found in the Attribute Guide.

Attribute Type	Format	JSON Example
Boolean	true or false	"true"
Date	ISO 8601 format yyyy-MM-dd	"2015-07-15"
Timestamp	ISO 8601 format yyyy-MM-dd'T'HH:mm:ss.SSSZZ	"2014-10-26T15:32:52.030-04:00"
Time	ISO 8601 format HH:mm:ss.SSSZZ	"13:20:00.000-05:00"
Integer	### (Digits only)  No leading zeros, no grouping separator, etc.	"1234"
Decimal	##.### (Digits and decimal separator only)  No leading zeros and no trailing zeros.	"90.05"
Code List	Code value as defined in code list.	"EA"
String		"GS1 JAM"

### Array Value

Some attributes are repeatable within a product. They are represented as an array of attribute values. For example, American Hospital Formulary Service (AHFS) Classification Code is a repeatable attribute. It is represented as an array of Strings.

#### JSON Example of AHFS Attribute

```
"ahfs":["28:08.12","20:04.04","56:04.00"]
```

## Attribute Groups

Attributes are grouped together with rules that require them to be repeated as a group. Below are some examples of attributes in groups. For a comprehensive list of attribute groups, please refer to the Attribute Guide.

### Nutrition Fact

A food products may have multiple sets of nutrition and ingredients information.

#### JSON Example of Nutrition Facts List

```
"nutritionAndIngredients": [
  {
    "foodLabelVersion": "P2017",
    "servingSizeEnglish": "Serving Size 6 Blocks (45 g)",
    "servingSizeFrench": "Portion 6 blocs (45 g)",
    "nutritionFacts": {
      "calories": "240",
      "caloriesUOM": "1",
      "totalFat": "13",
      "totalFatDailyPercent": "20",
    }
  },
  {
    ...
  }
]
```

### Active Ingredient

A drug product can have multiple active ingredients. Each of which is composed of five single-value attributes: Active Ingredient Name, Active Ingredient Strength, Active Ingredient Strength UOM, Active Ingredient Strength Per Typical Dose, and Active Ingredient Strength Per Typical Dose UOM.

#### JSON Example of Active Ingredient Attribute Group

```
"activeIngredientGroup": [
  {
    "activeIngredientName": "acetaminophen",
    "activeIngredientStrength": "325",
    "activeIngredientStrengthUoM": "mg",
    "activeIngredientStrengthTypicalDose": "325",
    "activeIngredientStrengthTypicalDoseUoM": "mg"
  },
  {
    "activeIngredientName": "caffeine citrate",
    "activeIngredientStrength": "30",
    "activeIngredientStrengthUoM": "mg",
    "activeIngredientStrengthTypicalDose": "30",
    "activeIngredientStrengthTypicalDoseUoM": "mg"
  },
  {

```

```

        "activeIngredientName": "codeine phosphate",
        "activeIngredientStrength": "15",
        "activeIngredientStrengthUoM": "mg",
        "activeIngredientStrengthTypicalDose": "15",
        "activeIngredientStrengthTypicalDoseUoM": "mg"
    }
]

```

### Drug and Health Product

A drug product in Canada can be categorized into drug product or health product, both types requiring one or more DIN (drug identification number) or NPN (Natural Product Number). Each drug and health product identification can be associated with a collection of AHFS, an active ingredient group number, and a collection of active ingredients. This attribute group consists of single-valued attribute (active ingredient group number, an attribute-group attribute (active ingredient group), as well as an array-value attribute (AHFS).

#### JSON Example of Drug and Health Products

```

"drugAndHealthProductGroup": [
    {
        "drugAndHealthProductNumberType": "DIN",
        "drugAndHealthProductNumber": "00723908",
        "ahfs": ["28:08.12", "20:04.04", "56:04.00"],
        "aIGroupNumber": "0302037001",
        "activeIngredientGroup": [ ... ]
    }
]

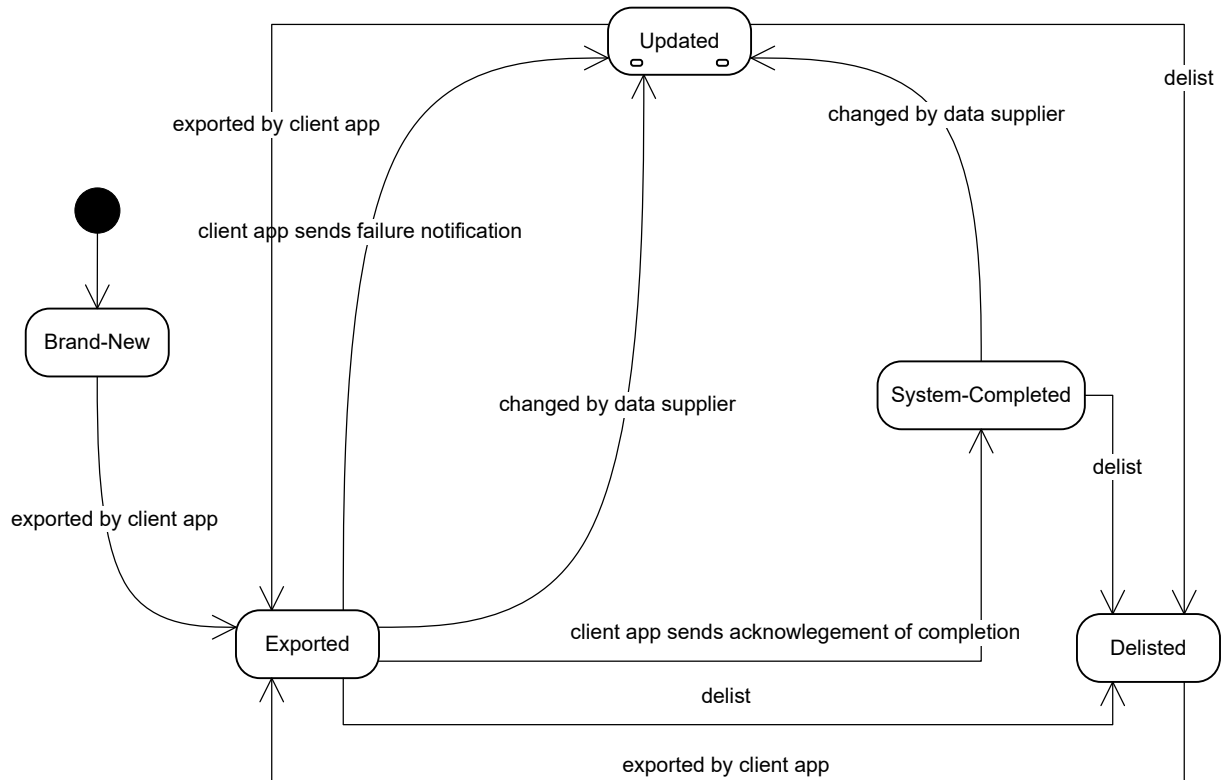
```

### NULL Value

If an attribute has no value, it will not show as part of the product data. This is shown in the Nutrition Fact attribute group example above. The saturated fat group does not contain the recommended daily percentage value.

### 3 Export Process

The main purpose of the GS1 Canada ECCnet Outbound API is to allow a client application to export new and updated products. The following state diagram captures how a product goes through the export process.



When a product first becomes accessible to a data recipient, it is marked as Brand-New.

In the diagram above, a product in the Updated state has changed since it was previously exported through API.

When a Brand-New or Updated product is exported by a client application, it enters into the Exported state. A product that is Exported is accompanied by either a success or failure notification.

If the client application confirms that a product is exported successfully, the product moves to System-Completed state, indicating that client synchronization is complete.

As a data recipient, if your client application cannot process the product retrieved from the REST API for any reason, the application should send back a failure notification. This moves the product status to Updated state and allows you to try processing or synchronizing that product again.

If a data recipient no longer wishes to receive updates of a product, they can delist the product and move it into Delisted state. Only previously exported products can be delisted.

To revert a delisted product to Updated state, have your client application export the delisted product.

The product state is managed independently for each IMS data bundle. For example, a product can be in the Delisted state for the Nutritional Content bundle but still be in the Updated state for eCommerce Content bundle. This gives full control for your implementation needs by controlling whether each bundle is processed together or separately.

## 4 API

The REST APIs provide programmatic access to search for new or updated products, export product details, report export status, and delist products. The following table shows the summary of the API methods provided for content access to all subscribed IMS data bundles.

All APIs are protected resources. Therefore, an access token must be used. For more information on how to acquire an access token, see Section 5 Authentication and Authorization. In this section, it is assumed that a valid access token is provided in the request header.

	Method	URL Template	Description	Scope
4.1	GET	products/:state/keys?ims=:ims	Search for brand-new and updated products.	BASIC
4.2	POST	products/exported	Retrieve a product identified by GTIN and GLN.	BASIC
4.3	GET	products/:gtin?ims=:ims	Retrieve a product identified by GTIN and GLN without affecting export status.	BASIC
4.4	POST	products/exportStatus	Confirm if a product has been processed by a client application.	BASIC

	Method	URL Template	Description	Scope
4.5	DELETE	products/:gtin	Delist a product. Tell the system that data recipient is no longer interested in updates of the product.	BASIC
4.6	GET	products/:gtin/state?ims=:ims	Retrieve the current state of a product in the export process	BASIC
4.7	GET	images/:gdti	Retrieve an image using GDTI.	BASIC
4.8	GET	products/:gln/:gtin/fullHierarchy	Retrieve the full hierarchy of a GTIN. For new item setup data bundle only.	BASIC
4.9	POST	query	Retrieve products by searching partial/full keyword. For new item setup data bundle only.	BASIC
4.10	GET	query/:queryId/page/:page	Retrieve a specific page of a query. For new item setup data bundle only.	BASIC
4.11	GET	products/keys?resultType=:resultType&ims=:ims	Search for new and updated products.	BASIC
4.12	POST	coverage	Add GTINs to the coverage.	BASIC



	Method	URL Template	Description	Scope
4.13	GET	coverage	Retrieves coverage by IMS.	BASIC
4.14	DELETE	coverage	Remove specified GTINs from the coverage.	BASIC

While the GS1 Canada REST API is designed to provide single access to all subscribed IMS data bundles, the client application can still have an option to access a specific IMS data bundle. This is achieved by adding the IMS data bundle identifier to the `ims` parameter of the URL template for GET methods or the request payload for POST methods in the above table for 4.1, 4.2, 4.3, 4.4, 4.5, 4.6 and 4.11.

For example, to access the Nutritional Content data bundle only, use `products/:state/key?ims=nutritionalContent`.

Or to retrieve the product details for Nutritional Content data bundle only via the POST `products/exported` method, include the `ims` parameter in the request payload:

```
{
  "gtin": "10041120160004",
  "baseGln": "0068780070934",
  "ims": "nutritionalContent"
}
```

Below is the list of IMS data bundle identifiers.

- newItemSetup (includes foodservice montage images, Planogram images and dimension data)
- ecommerceContent
- nutritionalContent
- pharmaceuticalContent
- planoContent (includes Planogram images and dimension data)
- marketingContent (includes Marketing images and dimension data)
- foodserviceContent
- enhancedAssetContent

#### 4.1 GET `products/:state/key?ims=:ims`

This API searches for new or updated products. It returns the keys (GLN, GTIN) of new and updated products. Search results appear in pages, the size of which are defined by the `limits` request parameter. Use a cursor to move forward through the result set.

## Resource URL

*https://\$RESOURCE\_SERVER\$/api/products/:state/keys.json*

## Parameters

Name	Type and Default Value	Description
state (Required)	String	The state parameter specified the state of the products that should be included in search result.  Example value: brand-new, updated
ims (Optional)	String	Filter the result using a specific IMS data bundle. If not provided, the result will no be filtered by IMS.  Example value: ecommerceContent, pharmaceutical Content , planoContent, marketingContent, ecommerceContent+newItemSetup, pharmaceuticalContent+marketingContent, newItemSetup +nutritionalContent+enhancedAssetContent,...etc.
limits (Optional)	Integer Default: 20	Limit of the number of items to return. This may be restricted by fixed system limits.  Example value: 25
cursor (Optional)	String Default: "0"	The start point of the current batch of response. "0" refers to the first batch.  Example value: "0", "10"

## Using Cursors to Navigate Search Results

To retrieve a cursored result, the client initially passes a **cursor** with a value of "0". By default, "0" is passed as **cursor** if it is not provided. The response will contain **nextCursor**, which client should send to receive the next batch of responses. When the API responds with a **nextCursor** = "0", it indicates that it is the last available page of results.

## Example Request

Example 1:

GET [https://\\$RESOURCE\\_SERVER\\$/api/products/updated/keys.json](https://$RESOURCE_SERVER$/api/products/updated/keys.json)

Example 2:

[https://\\$RESOURCE\\_SERVER\\$/api/products/updated/keys.json](https://$RESOURCE_SERVER$/api/products/updated/keys.json)

## Example Result

```
{
  {
    "gtin": "33457900555",
    "gtin14": "033457900555",
    "gln": "0068780070934",
    "baseGln": "0068780070934"
  },
  ...
  {
    "gtin": "10064541314900",
    "gtin14": "10064541314900",
    "gln": "0068780114133",
    "baseGln": "0068780114133"
  }
],
"nextCursor": "4"
}
```

## Exceptions

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Check if an access token is provided.  Re-authenticate or refresh token if the access token is expired.
403	Invalid parameters	Check if the parameters are correct.
404	URL Not Found	Check if the request URL is correct.
405	Method you have called is not supported for the invoked API.	Check if HTTP GET is used.
500	Server Internal Error	Call GS1 Canada for technical support.

## 4.2 POST products/exported

This API retrieves the details of the product that is identified by GTIN and GLN and performs export action on the product.

If a product is successfully exported, it moves into "Exported" state, and will no longer be searchable as new or updated product.

The state of a product is NOT changed if there is a HTTP error.

### Resource URL

[https://\\$RESOURCE\\_SERVER\\$/api/products/exported.json](https://$RESOURCE_SERVER$/api/products/exported.json)

## Parameters

Name	Type	Description
gln (Required if baseGln is not provided)	Up to 13-digit String	Information provider Global Location Number (GLN). Example value: 0068780070934
baseGln (Required if gln is not provided)	13-digit String	Information provider Global Location Number (GLN). Example value: 0068780070934
gtin (Required if gtin14 is not provided)	12-, 13- or 14-digit String	Global Trade Item Number (GTIN) of the product. Example value: 0041120160004
gtin14 (Required if gtin is not provided)	14-digit String	Global Trade Item Number (GTIN) of the product. Example value: 00041120160004
ims (Optional)	String	Filter the result using a specific IMS data bundle. If not provided, the result will no be filtered by IMS.  Example value: ecommerceContent, pharmaceuticalContent , planoContent, marketingContent, ecommerceContent+newItemSetup, pharmaceuticalContent+marketingContent, newItemSetup +nutritionalContent+enhancedAssetContent,...etc.

## Example Request

POST *https://\$RESOURCE\_SERVER\$/api/products/exported.json*

### Request Payload

```
{
  "gtin": "10041120160004",
  "baseGln": "0068780070934",
  "ims": "ecommerceContent"
}
```

## Example Result

```
{
  "identification": {
    "productType": "EA",
    "gtin": "7540157810020",
    "gtin14": "07540157810020",
  }
}
```

```

    "targetMarketCountryCode": "124",
    "catalogueGln": "0068780850147",
    "dataProviderName": "GS1 Canada - Provider",
    "gpc": "10000654",
    "gpcDescription": "Pet Care/Food Variety Packs"
  },
  "ecommerceContent": [
    {
      "identification": {
        "dateUpdated": "2019-03-27T12:41:19.083-04:00",
        "ecommerceStatusNutritionStatus": "Certified",
        "gln": "0005587200010",
        "gtin": "07540157810020",
        "systemVersion": "2018-09-05T12:31:10.000-04:00"
      },
      ...
    },
    {
      "identification": {
        "dateUpdated": "2019-04-27T08:14:30.000-04:00",
        "ecommerceStatusNutritionStatus": "Certified",
        "gln": "0005587200010",
        "gtin": "07540157810020",
        "systemVersion": "2019-01-05T10:22:12.000-04:00"
      },
      ...
    }
  ]
}

```

## Exceptions

The state of a product is NOT changed if there is a HTTP error.

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Check if access token is provided.  Re-authenticate or refresh token if the token is expired.
403	GTIN does not exist.	Check if the GTIN is correct.
403	GLN does not exist.	Check if the GLN is correct.
403	Product could not be moved to Exported state, because it is not in Brand-New or Updated state.	No action is required.
404	URL Not Found	Check if the request URL is correct.

Status Code	Causes	Suggested Actions
405	Method you have called is not supported for the invoked API.	Check if HTTP POST is used.
500	Server Internal Error	Call GS1 Canada for technical support.

### 4.3 GET products/:gtin

This API retrieves the details of the product that is identified by GTIN and GLN without affecting the export status.

#### Resource URL

[https://\\$RESOURCE\\_SERVER\\$/api/products/:gtin](https://$RESOURCE_SERVER$/api/products/:gtin)

#### Parameters

Name	Type	Description
gln (Required if baseGln is not provided)	Up to 13-digit String	Information provider Global Location Number (GLN). Example value: Example value: 0068780070934
baseGln (Required if gln is not provided)	13-digit String	Information provider Global Location Number (GLN). Example value: Example value: 0068780070934
gtin (Required)	12-, 13- or 14-digit String	Global Trade Item Number (GTIN) of the product. Example value: Example value: 10041120160004
ims (Optional)	String	Filter the result using a specific IMS data bundle. If not provided, the result will not be filtered by IMS.  Example value: ecommerceContent, pharmaceuticalContent , planoContent, marketingContent, ecommerceContent+newItemSetup, pharmaceuticalContent+marketingContent, newItemSetup +nutritionalContent+enhancedAssetContent,...etc.

### Example Request

```
GET
https://$RESOURCE_SERVER$/api/products/10041120160004?ims=ecommerceContent&base
Gln=0068780070934
```

### Example Result

See example result of *endpoint products/exported.json*

### Exceptions

The state of a product is NOT changed if there is a HTTP error.

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Check if access token is provided.  Re-authenticate or refresh token if the token is expired.
403	GTIN does not exist.	Check if the GTIN is correct.
403	GLN does not exist.	Check if the GLN is correct.
403	Product could not be moved to Exported state, because it is not in Brand-New or Updated state.	No action is required.
404	URL Not Found	Check if the request URL is correct.
405	Method you have called is not supported for the invoked API.	Check if HTTP GET is used.
500	Server Internal Error	Call GS1 Canada for technical support.

## 4.4 POST products/exportStatus

This API notifies GS1 Canada content access system if a product is successfully processed by a client application.

If a success notification is sent, the product moves from "Exported" state to "System-Complete" state.

If a failure notification is sent, the product moves from "Exported" state to "Updated" state, and becomes a candidate for search (GET products/:state/key?ims=:ims) again.

The state of a product is NOT changed if there is a HTTP error.

## Resource URL

*https://\$RESOURCE\_SERVER\$/api/products/exportStatus.json*

## Parameters

Name	Type	Description
gln  (Required if baseGln is not provided)	Up to 13-digit String	Information provider Global Location Number (GLN).  Example value: 0068780070934
baseGln  (Required if gln is not provided)	13-digit String	Information provider Global Location Number (GLN).  Example value: 0068780070934
gtin  (Required if gtin14 is not provided)	12-, 13- or 14-digit String	Global Trade Item Number (GTIN) of the product.  Example value: 0041120160004
gtin14  (Required if gtin is not provided)	14-digit String	Global Trade Item Number (GTIN) of the product.  Example value: 00041120160004
ims  (Optional)	String	Specify which IMS export status should be updated. If not provided, export status for all applicable IMS will be updated.  Example value : ecommerceContent, pharmaceuticalContent , planoContent, marketingContent, ecommerceContent+newItemSetup, pharmaceuticalContent+marketingContent, newItemSetup +nutritionalContent+enhancedAssetContent,...etc.
exportStatus  (Required)	Integer	Export result. 0 – export completed. Nonzero – export failed.  Example value: 1

## Example Request

POST *https://\$RESOURCE\_SERVER\$/api/products/exportStatus.json*

## Payload



#### Example 1:

```
{
  "gtin": "10041120160004",
  "baseGln": "0068780070934",
  "ims": "ecommerceContent",
  "exportStatus": 1
}
```

#### Example 2:

```
{
  "gtin": "10041120160004",
  "baseGln": "0068780070934",
  "ims": "pharmaceuticalContent+marketingContent",
  "exportStatus": 0
}
```

### Exceptions

Status Code	Causes	Suggested Actions
400	Bad Request	Check if the request body is correct.
401	Token is not provided or is invalid	Authenticate or Refresh token.
403	GTIN does not exist.	Check if the provided GTIN is correct.
403	GLN does not exist.	Check if the provided GLN is correct.
403	Export status is invalid.	Check export status.
403	Product could not be moved to System-Complete because it is no longer in Exported state due to changes.	No action required.  Client application to decide whether to use the outdated product details, or wait for the next export.
404	URL Not Found	Check request URL.
405	Method you have called is not supported for the invoked API.	Check if HTTP POST is used.
500	Server Internal Error	Call GS1 Canada for technical support.

## 4.5 DELETE products/:gtin

This API delists a product.

If a product is successfully delisted, it moves to "Delisted" state. A delisted product is not searchable as new or updated products.

The state of a product is NOT changed if there is a HTTP error.

### Resource URL

*https://\$RESOURCE\_SERVER\$/api/products/:gtin.json*

### Parameters

Name	Type	Description
gln  (Required if baseGln is not provided)	Up to 13-digit String	Information provider Global Location Number (GLN).  Example value: Example value: 0068780070934
baseGln  (Required if gln is not provided)	13-digit String	Information provider Global Location Number (GLN).  Example value: Example value: 0068780070934
gtin  (Required)	12-, 13- or 14-digit String	Global Trade Item Number (GTIN) of the product.  Example value: Example value: 0041120160004
ims  (Optional)	String	A specific IMS data bundle. If not provided, then all IMS will be delisted.  Example value : ecommerceContent, pharmaceuticalContent , planoContent, marketingContent, ecommerceContent+newItemSetup, pharmaceuticalContent+marketingContent, newItemSetup +nutritionalContent+enhancedAssetContent,...etc.

### Example Request

DELETE *https://\$RESOURCE\_SERVER\$/api/products/10041120160004.json*

Request payload

```
{
  "baseGln": "0068780070934",
  "ims": "ecommerceContent"
}
```

## Exceptions

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Authenticate or Refresh token.
403	GTIN does not exist.	Check if the provided GTIN is correct.
403	GLN does not exist.	Check if the provided GLN is correct.
404	URL Not Found	Check request URL.
405	Method you have called is not supported for the invoked API.	Check if HTTP DELETE is used.
500	Server Internal Error	Call GS1 Canada for technical support.

## 4.6 GET products/:gtin/state?ims=:ims

This API gets the current state of a product in the export process.

### Resource URL

*https://\$RESOURCE\_SERVER\$/api/products/:gtin/state.json?ims=:ims*

Name	Type	Description
gtin (Required)	12-, 13-, or 14- digits String	GTIN of the product  Example value: Example value: 06903923456845
ims (Optional)	String	Specify which IMS export status should be updated. If not provided, export status for all applicable IMS will be updated.  Example value: ecommerceContent, pharmaceuticalContent , planoContent, marketingContent, ecommerceContent+newItemSetup, pharmaceuticalContent+marketingContent, newItemSetup +nutritionalContent+enhancedAssetContent,...etc.

### Example Request

GET *https://\$RESOURCE\_SERVER\$/api/products/07540157810020/state.json*

### Example Result

[

```
{
  "gtin": "7540157810020",
  "gtin14": "07540157810020",
  "gln": "0068780850147",
  "baseGln": "0068780850147",
  "ims": "nutritionalContent",
  "state": "brand-new"
},
{
  "gtin": "7540157810020",
  "gtin14": "07540157810020",
  "gln": "0068780850147",
  "baseGln": "0068780850147",
  "ims": "ecommerceContent",
  "state": "brand-new"
},
{
  "gtin": "7540157810020",
  "gtin14": "07540157810020",
  "gln": "0068780850147",
  "baseGln": "0068780850147",
  "ims": "newItemSetup",
  "state": "brand-new"
},
{
  "gtin": "7540157810020",
  "gtin14": "07540157810020",
  "gln": "0068780850147",
  "baseGln": "0068780850147",
  "ims": "planoContent",
  "state": "brand-new"
},
{
  "gtin": "7540157810020",
  "gtin14": "07540157810020",
  "gln": "0068780850147",
  "baseGln": "0068780850147",
  "ims": "marketingContent",
  "state": "brand-new"
},
{
  "gtin": "7540157810020",
  "gtin14": "07540157810020",
  "gln": "0068780850147",
  "baseGln": "0068780850147",
  "ims": "pharmaceuticalContent",
  "state": "brand-new"
}
]
```

## Exceptions

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Authenticate or Refresh token.
403	GTIN does not exist.	Check if the provided GTIN is correct.
403	GLN does not exist.	Check if the provided GLN is correct.
404	URL Not Found	Check request URL.
405	Method you have called is not supported for the invoked API.	Check if HTTP GET is used.
500	Server Internal Error	Call GS1 Canada for technical support.

## 4.7 GET images/:gdti

This API gets an image using GDTI. GDTI is a unique image identifier included in the payload retrieved through the products/exported or products/:gtin methods.

### Resource URL

*https://\$RESOURCE\_SERVER\$/api/images/:gdti*

Name	Type	Description
gdti (Required)	30-digits String	GDTI of image Example value: 754000000015800000000001160464

### Example Request

GET *https://\$RESOURCE\_SERVER\$/api/images/754000000015800000000001160464*

### Example Result

*754000000015800000000001160464.jpg*

## Exceptions

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Authenticate or Refresh token.
403	GDTI does not exist.	Check if the provided GDTI is correct.
404	URL Not Found	Check request URL.
405	Method you have called is not supported for the invoked API.	Check if HTTP GET is used.
500	Server Internal Error	Call GS1 Canada for technical support.

## 4.8 GET products/:gln/:gtin/fullHierarchy

This API retrieves the full hierarchy of a product identified by GLN and GTIN.

This API is only applicable for the New Item Setup data bundle.

### Resource URL

*https://\$RESOURCE\_SERVER\$/api/products/:gln/:gtin/fullHierarchy*

Name	Type	Description
gln (Require)	Up to 13-digit String	Information provider Global Location Number (GLN).  Example value: Example value: 0068780070934
gtin (Required)	12-, 13-, or 14-digits String	GTIN of the product  Example value: 06903923456845

### Example Request

GET  
*https://\$RESOURCE\_SERVER\$/api/products/0068780070934/032477000054/fullHierarchy.js*  
 on

### Example Result

```
[ {
  "gtin": "032466000058",
  "gln": "0068780070934",
```

```

"quantity": 1,
"descriptionEnglish": "Extended Description - English",
"descriptionFrench": "Extended Description - French",
"packageLevel": "PL",
"nextLowerLevels": [
  {
    "gtin": "032477000054",
    "gln": "0068780070934",
    "quantity": 1,
    "descriptionEnglish": "Extended Description - English",
    "descriptionFrench": "Extended Description - French",
    "packageLevel": "CA",
    "nextLowerLevels": [
      {
        "gtin": "032488000050",
        "gln": "0068780070934",
        "quantity": 1,
        "descriptionEnglish": "Extended Description - English",
        "descriptionFrench": "Extended Description - French",
        "packageLevel": "PK",
        "nextLowerLevels": [
          {
            "gtin": "032499000155",
            "gln": "0068780070934",
            "quantity": 1,
            "descriptionEnglish": "Extended Description - English",
            "descriptionFrench": "Extended Description - French",
            "packageLevel": "EA"
          }
        ]
      }
    ]
  }
]

```

#### 4.9 POST query

This API searches products using a keyword on descriptive attributes. It returns the first page of the search result.

This API is only applicable for the New Item Setup data bundle.

##### Resource URL

[https://\\$RESOURCE\\_SERVER\\$/api/query](https://$RESOURCE_SERVER$/api/query)

Name	Type	Description
keyword	3 or more digits/letters	Partial/full search on the attributes:

(Required)	String	<ul style="list-style-type: none"> <li>○ GTIN (using 3 or more digits)</li> <li>○ Brand name (partial/full text search in both languages)</li> <li>○ Short description (partial/full text search in both languages)</li> <li>○ Extended description (partial/full text search in both languages)</li> <li>○ Product description (partial/full text search in both languages)</li> </ul> <p>Example value: "1234", "juice"</p>
perPage (Optional)	Integer Default: 20	<p>The maximum number of products to return in one page. This may be restricted by a fixed system limit.</p> <p>Example value: 25</p>

### Example Request

POST *https://\$RESOURCE\_SERVER\$/api/query*

Payload: {"keyword": "123"}

### Example Result

```
{
  "queryId": 1,
  "productCount": 22,
  "perPage": 20,
  "page": 0,
  "products": [
    {
      "gtin": "00045661234562",
      "gln": "0068781000251",
      "deleted": false,
      "withdrawn": false,
      "brandEnglish": "special NFT and food lebel 2017",
      "size": "10.000",
      "glnDescription": "Chocolate factory",
      "dateUpdated": 1502285705240,
      "productType": "EA",
      "descriptionEnglish": "EA GR bread ext en%",
      "descriptionFrench": "EA GR bread ext fr%",
      "brandFrench": "special NFT and food lebel 2017",
      "sizeUoM": "FO",
      "totalUnits": "1",
      "dateDiscontinued": "2025-09-10"
    },
    ...
  ]
}
```



```

    ]
}

```

## Exceptions

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Authenticate or Refresh token.
403	GDTI does not exist.	Check if the provided GDTI is correct.
404	URL Not Found	Check request URL.
405	Method you have called is not supported for the invoked API.	Check if HTTP POST is used.
500	Server Internal Error	Call GS1 Canada for technical support.

## 4.10 GET query/:queryId/page/:page

This API returns a specific page of a query.

This API method is only applicable for the New Item Setup data bundle.

### Resource URL

*https://\$RESOURCE\_SERVER\$/api/query/:queryId/page/:page*

Name	Type	Description
queryId (Required)	String	Query id. It is acquired from POST query endpoint.  Example value: "12"
page (Required)	Integer	page number. 0 refers to the first page.  Example value: 1

### Example Request

GET *https://\$RESOURCE\_SERVER\$/api/query/12/page/1*

### Example Result

```

{
  "queryId": 1,
  "productCount": 22,

```

```

"perPage": 20,
"page": 0,
"products": [
  {
    "gtin": "00045661234562",
    "gln": "0068781000251",
    "deleted": false,
    "withdrawn": false,
    "brandEnglish": "special NFT and food lebel 2017",
    "size": "10.000",
    "glnDescription": "Chocolate factory",
    "productType": "EA",
    "descriptionEnglish": "EA GR bread ext en%",
    "descriptionFrench": "EA GR bread ext fr%",
    "brandFrench": "special NFT and food lebel 2017",
    "sizeUoM": "FO",
    "totalUnits": "1",
    "dateDiscontinued": "2025-09-10"
  },
  ...
]
}

```

## Exceptions

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Authenticate or Refresh token.
403	GDTI does not exist.	Check if the provided GDTI is correct.
404	URL Not Found	Check request URL.
405	Method you have called is not supported for the invoked API.	Check if HTTP GET is used.
500	Server Internal Error	Call GS1 Canada for technical support.

### 4.11 GET products/keys?resultType=:resultType&ims=:ims

This API searches for new and updated products. It returns the keys (GLN, GTIN) of new and updated products. Search results appear in pages, the size of which are defined by the **limits** request parameter. Use a cursor to move forward through the result set.

It is an enhancement of API 4.1 which can search brand-new and updated candidates for exporting in one single call.

## Resource URL

*https://\$RESOURCE\_SERVER\$/api/products/keys.json*

## Parameters

Name	Type and Default Value	Description
resultType (Optional)	String	The result-type parameter specified the state of the products that should be included in search result. If not provided, the result will include all searchable states.  Example value: brand-new, updated, brand-new+updated
ims (Optional)	String	Filter the result using a specific IMS data bundle. If not provided, the result will no be filtered by IMS.  Example value: ecommerceContent, pharmaceuticalContent , planoContent, marketingContent, ecommerceContent+newItemSetup, pharmaceuticalContent+marketingContent, newItemSetup +nutritionalContent+enhancedAssetContent,...etc.
limits (Optional)	Integer Default: 20	Limit of the number of items to return. This may be restricted by fixed system limits. Example value: 25
cursor (Optional)	String Default: "0"	The start point of the current batch of response. "0" refers to the first batch.  Example value: "0", "10"

## Using Cursors to Navigate Search Results

To retrieve a cursored result, the client initially passes a **cursor** with a value of "0". By default, "0" is passed as **cursor** if it is not provided. The response will contain **nextCursor**, which client should send to receive the next batch of responses. When the API responds with a **nextCursor** = "0", it indicates that it is the last available page of results.

## Example Request

GET *https://\$RESOURCE\_SERVER\$/api/products/keys.json?resultType=brand-new+updated&ims=ecommerceContent&limits=25&cursor=3*

## Example Result

```
{
  {
    "gtin": "33457900555",
    "gtin14": "033457900555",
    "gln": "0068780070934",
    "baseGln": "0068780070934"
```

```

    },
    ...
    {
        "gtin": "10064541314900",
        "gtin14": "10064541314900",
        "gln": "0068780114133",
        "baseGln": "0068780114133"
    }
],
"nextCursor": "4"
}

```

## Exceptions

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Check if an access token is provided.  Re-authenticate or refresh token if the access token is expired.
403	Invalid parameters	Check if the parameters are correct.
404	URL Not Found	Check if the request URL is correct.
405	Method you have called is not supported for the invoked API.	Check if HTTP GET is used.
500	Server Internal Error	Call GS1 Canada for technical support.

### 4.12 POST coverage

Coverage is the GTIN list that a data recipient would like to be notified of any change. Data recipient can set up coverage for one or all IMS they subscribe to. Once IMS coverage is set up, a data recipient will receive the updates on the GTINs in coverage.

This API add GTINs to the coverage.

#### Resource URL

[https://\\$RESOURCE\\_SERVER\\$/api/coverage](https://$RESOURCE_SERVER$/api/coverage)

## Parameters

Name	Type and Default Value	Description
keys (Mandatory)	Array of product keys (<gtin, gln>)	<p>The list of GTINs to be added to the coverage.</p> <p>If both GTIN and GLN is provided, the only the GTIN from the specific catalog will be added to the coverage; if only GTIN is provided, then the same GTIN from any catalog will be added to the coverage.</p> <p>Example value: [{"gtin":"33457900555"; "gln":"0774882000068"}, {"gtin":"10064541314900"}]</p>
ims (Optional)	String	<p>Specify to which IMS coverage the GTINs are to be added. If not provided, the GTINs will be added to all applicable IMS coverage.</p> <p>Example value: ecommerceContent, pharmaceuticalContent , planoContent, marketingContent, ecommerceContent+newItemSetup, pharmaceuticalContent+marketingContent, newItemSetup +nutritionalContent+enhancedAssetContent,...etc.</p>

## Example Request

POST [https://\\$RESOURCE\\_SERVER\\$/api/coverage?ims=ecommerceContent](https://$RESOURCE_SERVER$/api/coverage?ims=ecommerceContent)

Payload:

```
{
  "keys": [
    {"gtin":"33457900555", "gln":"0774882000068"},
    {"gtin":"10064541314900"}
  ]
}
```

## Example Result

Status Code 200

## Exceptions

Status Code	Causes	Suggested Actions
400	Invalid request body	Check if gtin or gln exceeds maximum validation.
401	Token is not provided or is invalid.	<p>Check if an access token is provided.</p> <p>Re-authenticate or refresh token if the access token is expired.</p>

Status Code	Causes	Suggested Actions
403	Invalid parameters	Check if the parameters are correct.
404	URL Not Found	Check if the request URL is correct.
405	Method you have called is not supported for the invoked API.	Check if HTTP POST is used.
500	Server Internal Error	Call GS1 Canada for technical support.

### 4.13 GET coverage

This API retrieves coverage by IMS.

#### Resource URL

[https://\\$RESOURCE\\_SERVER\\$/api/coverage](https://$RESOURCE_SERVER$/api/coverage)

#### Parameters

Name	Type and Default Value	Description
ims (Mandatory)	String	Specify to which IMS coverage to retrieve. Multiple IMS is not supported.  Example value: ecommerceContent, pharmaceuticalContent
limits (Optional)	Integer Default: 100	Limit of the number of items to return. This is restricted by fixed system limits (3000). If "limits" exceeds 3000, it will be automatically set to 3000 by the system.  Example value: 25
cursor (Optional)	String Default: "0"	The start point of the current batch of response. "0" refers to the first batch.  Example value: "0", "10"

#### Using Cursors to Navigate Search Results

To retrieve a cursored result, the client initially passes a `cursor` with a value of "0". By default, "0" is passed as `cursor` if it is not provided. The response will contain `nextCursor`, which client should send to receive the next batch of responses. When the API responds with a `nextCursor` = "0", it indicates that it is the last available page of results.

### Example Request

GET

[https://\\$RESOURCE\\_SERVER\\$/api/coverage?ims=ecommerceContent&limits=5&cursor=0](https://$RESOURCE_SERVER$/api/coverage?ims=ecommerceContent&limits=5&cursor=0)

### Example Result

```
{
  "keys": [
    {"gtin": "33457900555", "gln": "0774882000068"},
    {"gtin": "10064541314900"},
    ...
  ],
  "nextCursor": "1"
}
```

### Exceptions

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Check if an access token is provided.  Re-authenticate or refresh token if the access token is expired.
403	Invalid parameters	Check if the parameters are correct.
404	URL Not Found	Check if the request URL is correct.
405	Method you have called is not supported for the invoked API.	Check if HTTP GET is used.
500	Server Internal Error	Call GS1 Canada for technical support.

## 4.14 DELETE coverage

This API remove specified GTINs from the coverage.

### Resource URL

[https://\\$RESOURCE\\_SERVER\\$/api/coverage](https://$RESOURCE_SERVER$/api/coverage)

## Parameters

Name	Type and Default Value	Description
gtins (Optional)	Array of String	The list of GTINs to be removed to the coverage. If not provided, the entire coverage will be removed.
ims (Optional)	String	Specify from which IMS coverage the GTINs are to be removed. If not provided, the GTINs will be removed to all applicable IMS coverage  Example value: ecommerceContent, pharmaceuticalContent , planoContent, marketingContent, ecommerceContent+newItemSetup, pharmaceuticalContent+marketingContent, newItemSetup +nutritionalContent+enhancedAssetContent,...etc.

## Example Request

DELETE [https://\\$RESOURCE\\_SERVER\\$/api/coverage?ims=ecommerceContent](https://$RESOURCE_SERVER$/api/coverage?ims=ecommerceContent)

Payload: {"gtins": ["33457900555", "10064541314900"]}

## Example Result

Status Code 200

## Exceptions

Status Code	Causes	Suggested Actions
401	Token is not provided or is invalid.	Check if an access token is provided.  Re-authenticate or refresh token if the access token is expired.
403	Invalid parameters	Check if the parameters are correct.
404	URL Not Found	Check if the request URL is correct.
405	Method you have called is not supported for the invoked API.	Check if HTTP DELETE is used.
500	Server Internal Error	Call GS1 Canada for technical support.



## 5 Authentication and Authorization

GS1 Canada REST APIs use the OAuth 2.0 protocol for authentication and authorization.

An API account is created by a GS1 Canada representative for each client application. The account may not be used to access any GS1 Canada service by any individual end user. A client application uses an API account to call GS1 Canada APIs. It exchanges username and password for an access token directly. This token can then be used on subsequent requests to authorize access to protected resources.

The typical flow for accessing an API involves the following activities:

1. A client application requests an access token.
2. A client application accesses protected resources using the access token.
3. If the access token is expired, a client application can either re-authenticate, or update the access token using the refresh token.

### 5.1 Request an Access Token

A client application exchanges username and password for an access token.

Resource URL

*https://\$AUTH\_SERVER\$/oauth/token*

#### Parameters

Name	Description
grant_type (Required)	Identification for logging in with a username and password.
username (Required)	User name of an API account.  Example value: api@datarecipient.ca
password (Required)	Password of an API account.  Example value: password
client_id (Required)	Each registered client application is assigned a unique Client ID and Client Secret. The client ID is considered public information.  Example value: datarecipientapp
client_secret (Required)	Each registered client application is assigned a unique Client ID and Client Secret. The client secret must be kept confidential.  Example value: secret
scope	The services a client application wants to access. It is recommended not to include all subscribed services, but to include the minimum set of services

Name	Description
	that a client application uses. The scope required for each API is listed in Section 0.  Example value: basic

### Example Request

client\_id and client\_secret can be included in the request as either query parameters or a basic authentication header. When possible, the HTTP header is preferable.

- Accessing the OAuth endpoint using a basic authentication header with the client ID and secret concatenated with a ":" separator and base64 encoded  
POST  
https://\$AUTH\_SERVER\$/oauth/token?grant\_type=password&username=api@datarecipient.ca&password=password&scope=basic  
Authorization: Basic c3VuY29yYXBwOnNlY3JldA==
- Accessing the OAuth endpoint using query parameters  
POST  
https://\$AUTH\_SERVER\$/oauth/token?grant\_type=password&client\_id=datarecipientapp&client\_secret=secret&username=api@datarecipient.ca&password=password&scope=basic

### Example Response

If the API user is authenticated, OAuth generates an access token and sends it back to a client application in following format.

```
{
  "access_token": "a0767547-7ec4-4016-beee-13dc35e2d31b",
  "token_type": "bearer",
  "refresh_token": "c6fd8dd6-ced4-49c9-a8a3-e3a9f19fe769",
  "expires_in": 741,
  "scope": "basic",
  "location_id": 12345
}
```

### Exceptions

Status Code	Causes	Suggested Actions
400	Bad Request	Check if all required parameters are provided.  Check with GS1 Canada if the application is granted access to the scope requested.
401	Unauthorized	Check if client secret is correct.

Status Code	Causes	Suggested Actions
404	URL Not Found	Check request URL.
405	Method you have called is not supported for the invoked API.	Check if HTTP POST is used.
500	Server Internal Error	Call GS1 Canada for technical support.

## 5.2 Access Protected Resources using Access Token

A client application uses the token to make calls to an GS1 Canada API accesses protected resources. The access token is included in a request to an GS1 Canada API by including either an `access_token` query parameter or an `Authorization: Bearer` HTTP header. When possible, the HTTP header is preferable.

### Example Request

- Accessing a GS1 Canada API using HTTP header.

GET

[https://\\$RESOURCE\\_SERVER\\$/api/products/brand-new/keys.json?limits=25&cursor=0](https://$RESOURCE_SERVER$/api/products/brand-new/keys.json?limits=25&cursor=0)

Authorization: bearer ffbf8e31-7bd1-4030-bebf-fa5880310e38

- Accessing a GS1 Canada API using query parameters

GET

[https://\\$RESOURCE\\_SERVER\\$/api/products/brand-new/keys.json?limits=25&cursor=0&access\\_token=4a4a2d6d-bf74-4b0f-bec3-d3694f36fe4f](https://$RESOURCE_SERVER$/api/products/brand-new/keys.json?limits=25&cursor=0&access_token=4a4a2d6d-bf74-4b0f-bec3-d3694f36fe4f)

## 5.3 Update Expired Access Token

In case the access token is expired, the client application needs to get a new token using its refreshing token that was accepted in step 5.1.

### Example Request

POST

[https://\\$AUTH\\_SERVER\\$/oauth/token?grant\\_type=refresh\\_token&client\\_id=datarecipientapp&client\\_secret=secret&refresh\\_token=08ec94fa-dc1b-4563-8587-511a244935f3](https://$AUTH_SERVER$/oauth/token?grant_type=refresh_token&client_id=datarecipientapp&client_secret=secret&refresh_token=08ec94fa-dc1b-4563-8587-511a244935f3)

### Example Response

```
{
  "access_token": "984b851a-80c4-49d3-9ac8-6008b25aa526",
  "token_type": "bearer",
```

```

    "refresh_token":"c6fd8dd6-ced4-49c9-a8a3-e3a9f19fe769","expires_in":1799,
    "scope":"basic",
    "location_id":12345
  }

```

## Exceptions

Status Code	Causes	Suggested Actions
400	Bad Request	Check if all required parameters are provided.  Check if the refresh token is correct.
401	Unauthorized	Check if client secret is correct.
404	URL Not Found	Check request URL.
405	Method you have called is not supported for the invoked API	Check if HTTP POST is used.
500	Server Internal Error	Call GS1 Canada for technical support.

## 6 API Version

While the GS1 Canada ECCnet Outbound API has been designed to be flexible and extensible, it is possible that changes in requirements will eventually lead to changes in the API. To accommodate this, the API has been designed with versioning in mind.

The web service provided through the GS1 Canada REST API consists of two parts: the resources, and the manipulation of the representation of those resources. The resources identified in GS1 Canada REST API are the real world concepts, such as product, product data and product hierarchy. They are very unlikely to change in the future, which means the URL Template is expected to remain stable over time. Their representation, on the other hand, is likely to change. The following are some of the foreseeable changes.

- New attributes are introduced to data on a regular basis to support new requirements. It is recommended that a client application should have the capability to ignore new attributes so that it does not have to change if it is not interested in the new attributes.
- Less often, the attribute type may change over time. For example: the maximum length of a string value may increase; the code values in a code list may change; the total digits of a numeric value may change; the structure of an attribute group changes. These changes may break the communication between a client application and server. In such a case, GS1 Canada will notify clients. A client application may have to adjust.
- Rarely, an existing attribute might be deprecated and discontinued. The attribute will no longer be part of the public data. A client application can treat the discontinued attributes as attributes with NULL value.
- The sequence of the attributes in product data may change over time. A client application should have the capability to cope with different attribute sequence.

Versioning of GS1 Canada REST API is achieved via content negotiation. This enables the resources, more importantly, the URL resource identifiers to remain stable over time.

It is recommended that client applications also specify the format and version in the request header.

Accept: application/vnd.GS1Canada.product.v1+json