Real-Time Inventory Service APIs

The Real-Time Inventory Service APIs provide accurate and real-time inventory visibility to your site. These APIs give information such as Get Group Site Availability, Get Product Site Availability, Get Product Availability at Locations, and Get Group Product Availability at Location. This service is enabled by default for all implementations to support retrieving inventory levels.

Refer to the Real-time Inventory topic for more information. For more general details about using the Inventory APIs, including best practices, see the Inventory API Overview.

GraphQL Queries

GraphQL queries should be made as a POST call to this endpoint:

```
.../api/commerce/realtime-inventory/graphql
```

The RIS GraphQL queries are externally available and Order Management clients can take advantage of them to drive their storefront experience. You can directly call the RIS queries for your Product Listing Pages or Product Details Pages pages.

The request body varies depending on the specific query, as shown in the following sections.

Get Inventory API

The Get Inventory API call also provides RIS data using the endpoint `.../api/commerce/realtime-inventory/v5/inventory` . This is the same POST request as the standard GET Inventory call, but provides real-time inventory levels and additional fields for the inventory segmentation and accurate fulfillment date features.

Example API Response


```
[
  {
    "locationName": "West Great Falls Store",
    "locationCode": "4",
    "active": true,
    "tenantID": 17809,
    "onHand": 105,
    "available": 103,
    "allocated": 2,
    "pending": 0,
    "upc": "KTP",
    "blockAssignment": false,
    "ltd": 0,
    "floor": 0,
    "safetyStock": 0,
    "distance": 0.0,
    "directShip": true,
    "transferEnabled": true,
    "pickup": true,
    "countryCode": "US",
```

```
    "currencyID": 1,
    "retailPrice": 1.99,
    "taggedInventory": [
        {
            "onHand": 105,
            "available": 103,
            "allocated": 2,
            "pending": 0,
            "tags": {
                "OrderType": "STH",
                "Channel": "Kibo"
            },
            "futureInventory": [
                {
                    "futureInventoryID": 13672,
                    "externalID": "12",
                    "onhand": 20,
                    "available": 20,
                    "allocated": 0,
                    "pending": 0,
                    "type": "Adjust",
                    "bopisProcessingTimeHours": 15,
                    "sthProcessingTimeHours": 7,
                    "receiveProcessingTimeHours": 10,
                    "deliveryDate": "2025-06-25T19:59:00+0000",
                    "createDate": "2023-08-17T19:12:25+0000",
                    "sthFulfillmentDate": "2025-06-26T02:59:00+0000",
                    "bopisFulfillmentDate": "2025-06-26T10:59:00+0000"
                }
            ],
            "bopisProcessingTimeHours": 15,
            "sthProcessingTimeHours": 7,
            "transferProcessingTimeHours": 15,
            "receiveProcessingTimeHours": 10,
            "sthFulfillmentDate": "2024-01-30T23:00:43+0000",
            "bopisFulfillmentDate": "2024-01-31T07:00:43+0000",
            "transferFulfillmentDate": "2024-01-31T14:00:43+0000"
        }
    ]
},
{
    "locationName": "Berne Apparel",
    "locationCode": "BERNE",
    "active": true,
    "tenantID": 17809,
    "onHand": 20,
    "available": 20,
    "allocated": 0,
    "pending": 0,
    "upc": "KTP",
    "blockAssignment": false,
    "ltd": 0,
    "floor": 0,
    "safetyStock": 0,
    "distance": 0.0,
    "directShip": true,
    "transferEnabled": true,
    "pickup": true,
    "countryCode": "US",
    "currencyID": 1,
```

"currencyID": 1,
"retailPrice": 1.99,
"taggedInventory": [
{
"onHand": 20,
"available": 20,
"allocated": 0,
"pending": 0,
"tags": {
"OrderType": "STH",
"Channel": "Kibo"
},
"futureInventory": null,
"receiveProcessingTimeHours": 6
}
]
},
{
"locationName": "BelInv001",
"locationCode": "mike_test",
"active": true,
"tenantID": 17809,
"onHand": 10,
"available": 10,
"allocated": 0,
"pending": 0,
"upc": "KTP",
"blockAssignment": false,
"ltd": 0,
"floor": 0,
"safetyStock": 0,
"distance": 0.0,
"directShip": true,
"transferEnabled": true,
"pickup": true,
"countryCode": "US",
"taggedInventory": [
{
"onHand": 10,
"available": 10,
"allocated": 0,
"pending": 0,
"tags": {
"OrderType": "STH",
"Channel": "Kibo"
},
"futureInventory": null
}
]
},
{
"locationName": "AFD STH Bopis Transfer Location",
"locationCode": "AFDSTHBopisTransferLoc1",
"active": true,
"tenantID": 17809,
"onHand": 0,
"available": 0,
"allocated": 0,
"pending": 0,
"upc": "KTP",

```
      "blockAssignment": false,
      "ltd": 0,
      "floor": 0,
      "safetyStock": 0,
      "distance": 0.0,
      "directShip": true,
      "transferEnabled": true,
      "pickup": true,
      "countryCode": "US",
      "taggedInventory": [
         {
            "onHand": 0,
            "available": 0,
            "allocated": 0,
            "pending": 0,
            "tags": {
               "OrderType": "STH",
               "Channel": "Kibo"
            },
            "futureInventory": null
         }
      ]
   }
]
```


The following are multiple Inventory APIs. You can either run using REST or GraphQL queries.

Get Group Site Availability

This query gets the product availability across the site for multiple product codes.

GraphQL Request Body

The `includeNegativeInventory` field defaults to false.

```
{
  getGroupSiteAvailability(productCodes: ["CHAR-5055-1"], futureDaysToConsider: 1000) {
    quantity
    isAvailable
    futureQuantity
    futureIsAvailable
    products {
      productCode
      quantity
      isAvailable
      futureQuantity
      futureIsAvailable
    }
  }
}
```

Example GraphQL Response

```
{
  "data": {
    "getGroupSiteAvailability": {
      "quantity": "<BigInt>",
      "isAvailable": "<Boolean>",
      "futureQuantity": "<BigInt>",
      "futureIsAvailable": "<Boolean>",
      "products": [
        {
          "productCode": "CHAR-5055-1",
          "quantity": "<BigInt>",
          "isAvailable": "<Boolean>",
          "futureQuantity": "<BigInt>",
          "futureIsAvailable": "<Boolean>"
        }
      ]
    }
  }
}
```

REST API Endpoint

```
POST {baseUrl}/api/commerce/realtime-inventory/api/storefront/site/availability
```

The following are headers for API operation.

Header	Type	Description
x-vol-tenant	request and response	The unique identifier of the tenant. This number appears in your site's URL in Admin, preceded by a "t". For example: `https://t**0000**.sandbox.mozu.com/Admin/m-1/` in a sandbox environment.
x-vol-site	request and response	The unique identifier of the site. This number can be found in the URL of the live site as well as some areas of the Admin, such as under **System** > **Structure** > **Site**, preceded by an "s-". For example: `https://t0000.sandbox.mozu.com/Admin/s-**11111**/website` in a sandbox environment.

Example API Request

```
{
 "includeNegativeInventory": "<boolean>",
 "productCodes": [
  "<string>",
  "<string>"
 ]
}
```

Example API Response

```
{
 "quantity": "<integer>",
 "isAvailable": "<boolean>",
 "products": [
  {
   "quantity": "<integer>",
   "isAvailable": "<boolean>",
   "productCode": "<string>"
  },
  {
   "quantity": "<integer>",
   "isAvailable": "<boolean>",
   "productCode": "<string>"
  }
 ]
}
```

Get Product Site Availability

This query gets the product availability across the site for a particular product code.

GraphQL Request Body

The `includeNegativeInventory` field defaults to false.

```
query{
   getProductSiteAvailability(
      productCode:"CHAR-5055-1",
      futureDaysToConsider: 1000
   ){
      quantity
      isAvailable
      futureIsAvailable
      futureQuantity
   }
}
```

Example GraphQL Response

```
{
   "data": {
      "getProductSiteAvailability": {
         "quantity": "<BigInt>",
         "isAvailable": "<Boolean>",
         "futureIsAvailable": "<Boolean>",
         "futureQuantity": "<BigInt>"
      }
   }
}
```

REST API Endpoint

```
GET {baseUrl}/api/commerce/realtime-inventory/api/storefront/site/availability/
```

Example API Response

```
{
 "quantity": "<integer>",
 "isAvailable": "<boolean>"
}
```

Get Product Availability at Locations

This query gets the availability for a product across multiple location codes.

GraphQL Request Body

```
query{
   getProductAvailabilityAtLocations(
      productCode: "KTP",
      locationCodes:["4", "BERNE", "mike_test"]
      tags: [
         {
            category: "OrderType",
            tag : "STH"
         }
      ],
      futureDaysToConsider: 100){
      locations{
         locationCode
         quantity
         isAvailable
         sthFulfillmentDate
         bopisFulfillmentDate
         transferFulfillmentDate
         sthProcessingTimeHours
         bopisProcessingTimeHours
         transferProcessingTimeHours
         receiveProcessingTimeHours
         segments{
               tags{
                  category
                  tag
               }
               quantity
               isAvailable
               sthFulfillmentDate
               bopisFulfillmentDate
               transferFulfillmentDate
               sthProcessingTimeHours
               bopisProcessingTimeHours
               transferProcessingTimeHours
               receiveProcessingTimeHours
               futureInventory{
                  quantity
                  isAvailable
                  incomingFutureInventoryDate
                  sthFulfillmentDate
                  bopisFulfillmentDate
                  transferFulfillmentDate
                  sthProcessingTimeHours
                  bopisProcessingTimeHours
                  transferProcessingTimeHours
                  receiveProcessingTimeHours
               }
            }
      }
   }
}
```

Example GraphQL Response

```
{
   "data": {
      "getProductAvailabilityAtLocations": {
         "locations": [
```

```
        {
            "locationCode": "BERNE",
            "quantity": "10",
            "isAvailable": true,
            "receiveProcessingTimeHours": "6",
            "segments": [
                {
                    "tags": [
                        {
                            "category": "Channel",
                            "tag": "Kibo"
                        },
                        {
                            "category": "OrderType",
                            "tag": "STH"
                        }
                    ],
                    "quantity": "10",
                    "isAvailable": true,
                    "receiveProcessingTimeHours": "6"
                }
            ]
        },
        {
            "locationCode": "4",
            "quantity": "4",
            "isAvailable": true,
            "sthFulfillmentDate": "2024-02-12T15:40:17+0000",
            "bopisFulfillmentDate": "2024-02-12T23:40:17+0000",
            "transferFulfillmentDate": "2024-02-13T06:40:17+0000",
            "sthProcessingTimeHours": "7",
            "bopisProcessingTimeHours": "15",
            "transferProcessingTimeHours": "15",
            "receiveProcessingTimeHours": "10",
            "segments": [
                {
                    "tags": [
                        {
                            "category": "Channel",
                            "tag": "Kibo"
                        },
                        {
                            "category": "OrderType",
                            "tag": "STH"
                        }
                    ],
                    "quantity": "4",
                    "isAvailable": true,
                    "sthFulfillmentDate": "2024-02-12T15:40:17+0000",
                    "bopisFulfillmentDate": "2024-02-12T23:40:17+0000",
                    "transferFulfillmentDate": "2024-02-13T06:40:17+0000",
                    "sthProcessingTimeHours": "7",
                    "bopisProcessingTimeHours": "15",
                    "transferProcessingTimeHours": "15",
                    "receiveProcessingTimeHours": "10"
                }
            ]
        },
        {
            "locationCode": "mike_test",
```

```
            "locationCode": "mike_test",
            "quantity": "10",
            "isAvailable": true,
            "segments": [
               {
                  "tags": [
                     {
                        "category": "Channel",
                        "tag": "Kibo"
                     },
                     {
                        "category": "OrderType",
                        "tag": "STH"
                     }
                  ],
                  "quantity": "10",
                  "isAvailable": true
               }
            ]
         }
      ]
   }
}
```


REST API Endpoint

`GET {baseUrl}/api/commerce/realtime-inventory/api/storefront/availability/locations/product`

The following are headers for API operation.

Header	Type	Description
x-vol-tenant	request and response	The unique identifier of the tenant. This number appears in your site's URL in Admin, preceded by a "t". For example: `https://t**0000**.sandbox.mozu.com/Admin/m-1/` in a sandbox environment.
x-vol-site	request and response	The unique identifier of the site. When you log in to Admin, this number appears in the URL preceded by an "s-". For example: `https://t0000.sandbox.mozu.com/Admin/s-**11111**/website` in a sandbox environment.

Example API Response

```
{
 "productCode": "<string>",
 "locations": [
   {
    "quantity": "<integer>",
    "isAvailable": "<boolean>",
    "productCode": "<string>",
    "locationCode": "<string>",
    "productDetails": {
     "sku": "<string>",
     "partNumber": "<string>"
    }
   },
   {
    "quantity": "<integer>",
    "isAvailable": "<boolean>",
    "productCode": "<string>",
    "locationCode": "<string>",
    "productDetails": {
     "sku": "<string>",
     "partNumber": "<string>"
    }
   }
 ]
}
```

Get Group Availability at Locations

This query gets the availability for multiple product codes or variants across multiple location codes.

GraphQL Request Body

```
query {
   getGroupAvailabilityAtLocations(productCodes: ["KTP"], locationCodes:["4", "BERNE", "mike_test
"]
      tags: [
         {
            category: "OrderType",
            tag : "STH"
         }
      ]){
      locations{
         locationCode
         isAvailable
         sthFulfillmentDate
         bopisFulfillmentDate
         transferFulfillmentDate
         sthProcessingTimeHours
         bopisProcessingTimeHours
         transferProcessingTimeHours
         receiveProcessingTimeHours
         productDetails {
            sku
            partNumber
         }
         segments{
               tags{
                  category
                  tag
               }
               quantity
               isAvailable
               sthFulfillmentDate
               bopisFulfillmentDate
               transferFulfillmentDate
               sthProcessingTimeHours
               bopisProcessingTimeHours
               transferProcessingTimeHours
               receiveProcessingTimeHours
               futureInventory{
                  quantity
                  isAvailable
                  incomingFutureInventoryDate
                  sthFulfillmentDate
                  bopisFulfillmentDate
                  transferFulfillmentDate
                  sthProcessingTimeHours
                  bopisProcessingTimeHours
                  transferProcessingTimeHours
                  receiveProcessingTimeHours
               }
            }
      }
   }
}
```

Example GraphQL Response

```
{
   "data": {
      "getGroupAvailabilityAtLocations": [
```

```
    "getGroupAvailabilityAtLocations": [
      {
        "locations": [
          {
            "locationCode": "BERNE",
            "isAvailable": true,
            "receiveProcessingTimeHours": "6",
            "productDetails": {},
            "segments": [
              {
                "tags": [
                  {
                    "category": "Channel",
                    "tag": "Kibo"
                  },
                  {
                    "category": "OrderType",
                    "tag": "STH"
                  }
                ],
                "quantity": "10",
                "isAvailable": true,
                "receiveProcessingTimeHours": "6"
              }
            ]
          },
          {
            "locationCode": "4",
            "isAvailable": true,
            "sthFulfillmentDate": "2024-02-12T15:46:18+0000",
            "bopisFulfillmentDate": "2024-02-12T23:46:18+0000",
            "transferFulfillmentDate": "2024-02-13T06:46:18+0000",
            "sthProcessingTimeHours": "7",
            "bopisProcessingTimeHours": "15",
            "transferProcessingTimeHours": "15",
            "receiveProcessingTimeHours": "10",
            "productDetails": {},
            "segments": [
              {
                "tags": [
                  {
                    "category": "Channel",
                    "tag": "Kibo"
                  },
                  {
                    "category": "OrderType",
                    "tag": "STH"
                  }
                ],
                "quantity": "4",
                "isAvailable": true,
                "sthFulfillmentDate": "2024-02-12T15:46:18+0000",
                "bopisFulfillmentDate": "2024-02-12T23:46:18+0000",
                "transferFulfillmentDate": "2024-02-13T06:46:18+0000",
                "sthProcessingTimeHours": "7",
                "bopisProcessingTimeHours": "15",
                "transferProcessingTimeHours": "15",
                "receiveProcessingTimeHours": "10",
                "futureInventory": [
                  {
```

```
                    {
                        "quantity": "20",
                        "isAvailable": true,
                        "incomingFutureInventoryDate": "2025-06-25T19:59:00+0000",
                        "sthFulfillmentDate": "2025-06-26T02:59:00+0000",
                        "bopisFulfillmentDate": "2025-06-26T10:59:00+0000",
                        "sthProcessingTimeHours": "7",
                        "bopisProcessingTimeHours": "15",
                        "receiveProcessingTimeHours": "10"
                    }
                ]
            }
        ]
    },
    {
        "locationCode": "mike_test",
        "isAvailable": true,
        "productDetails": {},
        "segments": [
            {
                "tags": [
                    {
                        "category": "Channel",
                        "tag": "Kibo"
                    },
                    {
                        "category": "OrderType",
                        "tag": "STH"
                    }
                ],
                "quantity": "10",
                "isAvailable": true
            }
        ]
    }
]
}
]
}
}
```


REST API Endpoint

`GET {baseUrl}/api/commerce/realtime-inventory/api/storefront/availability/locations/products`

The following are headers for API operation.

Header	Type	Description
x-vol-tenant	request and response	The unique identifier of the tenant. This number appears in your site's URL in Admin, preceded by a "t". For example: `https://t**0000**.sandbox.mozu.com/Admin/m-1/` in a sandbox environment.

Header	Type	Description
x-vol-site	request and response	The unique identifier of the site. When you log in to Admin, this number appears in the URL preceded by an "s-". For example: `https://t0000.sandbox.mozu.com/Admin/s-**11111**/website` in a sandbox environment.

Example API Request

```
{
  "productCodes": [
    "<string>",
    "<string>"
  ],
  "locationCodes": [
    "<string>",
    "<string>"
  ]
}
```

Example API Response

```
[
  {
    "productCode": "<string>",
    "locations": [
      {
        "quantity": "<integer>",
        "isAvailable": "<boolean>",
        "productCode": "<string>",
        "locationCode": "<string>",
        "productDetails": {
          "sku": "<string>",
          "partNumber": "<string>"
        }
      },
      {
        "quantity": "<integer>",
        "isAvailable": "<boolean>",
        "productCode": "<string>",
        "locationCode": "<string>",
        "productDetails": {
          "sku": "<string>",
          "partNumber": "<string>"
        }
      }
    ]
  },
  {
    "productCode": "<string>",
    "locations": [
      {
        "quantity": "<integer>",
        "isAvailable": "<boolean>",
        "productCode": "<string>",
        "locationCode": "<string>",
        "productDetails": {
          "sku": "<string>",
          "partNumber": "<string>"
        }
      },
      {
        "quantity": "<integer>",
        "isAvailable": "<boolean>",
        "productCode": "<string>",
        "locationCode": "<string>",
        "productDetails": {
          "sku": "<string>",
          "partNumber": "<string>"
        }
      }
    ]
  }
]
```


Get Group Available Locations

This query gets the locations of available inventory for specific fulfillment types. Use the following `productSearchType` values to further fine-tune your search results as needed.

- **ALL**: Only returns locations that have all of the quantity available for all of the products in the request.
- **PARTIAL**: Only returns locations that have all of the quantity available for at least one of the products in the request, and only those products.
- **ANY**: Returns locations that have any quantity available for any of the products in the request.
- **ALL_STORES**: All stores that are part of the location network will be returned even if they have no inventory for the specified product.

GraphQL Request Body

This example queries for specific product inventory being fulfilled via pickup or direct ship.

```
query{
   getGroupAvailableLocations(
      fulfillmentTypes: [DIRECT_SHIP, PICKUP]
      productCodes: ["KTP"]
      tags: [
         {
            category: "OrderType",
            tag : "STH"
         },
         {
            category: "Channel",
            tag : "Ebay"
         }
      ]){
      locationCodes
   }
}
```

Example GraphQL Response

```
{
"data": {
"getGroupAvailableLocations": {
"locationCodes": [
"A",
"8"
]
}
}
}
```

REST API Endpoint

```
POST {baseUrl}/api/commerce/realtime-inventory/api/storefront/locations
```

The following are headers for API operation.

Header	Type	Description
x-vol-tenant	request and response	The unique identifier of the tenant. This number appears in your site's URL in Admin, preceded by a "t". For example: `https://t**0000**.sandbox.mozu.com/Admin/m-1/` in a sandbox environment.
x-vol-site	request and response	The unique identifier of the site. When you log in to Admin, this number appears in the URL preceded by an "s-". For example: `https://t0000.sandbox.mozu.com/Admin/s-**11111**/website` in a sandbox environment.

Example API Request

```
{
  "fulfillmentTypes": [
    "PICKUP",
    "DIRECT_SHIP"
  ],
  "productCodes": [
    "<string>",
    "<string>"
  ],
  "productSearchType": "all"
}
```

Example API Response

```
{
"data": {
"getGroupAvailableLocations": {
"locationCodes": [
"A",
"8"
]
}
}
}
```

Get Group Available Pickup Locations

This query gets the pickup locations of available inventory for only returns pickup locations. This supports ANY query which is a union across multiple locations. It also supports an ALL which is the intersection across multiple locations.

GraphQL Request Body

```
query{ getGroupAvailablePickupLocations(productCodes: [String!]): PickupLocationsResponse}
```

Example GraphQL Response

```
{
 "data": {
  "getGroupAvailablePickupLocations": {
   "productCode": "<String>",
   "pickupLocations": [
    {
     "locationCode": "<String>",
     "address": "<String>",
     "hoursOfOperation": "<String>",
     "isAvailableForPickup": "<Boolean>",
     "sthPickupDate": "<OffsetDateTime>",
     "bopisPickupDate": "<OffsetDateTime>",
     "transferPickupDate": "<OffsetDateTime>",
     "productDetails": {
      "partNumber": "<String>",
      "sku": "<String>"
     }
    },
    {
     "locationCode": "<String>",
     "address": "<String>",
     "hoursOfOperation": "<String>",
     "isAvailableForPickup": "<Boolean>",
     "sthPickupDate": "<OffsetDateTime>",
     "bopisPickupDate": "<OffsetDateTime>",
     "transferPickupDate": "<OffsetDateTime>",
     "productDetails": {
      "partNumber": "<String>",
      "sku": "<String>"
     }
    }
   ]
  }
 }
}
```