

IoT RESTful API Guide

Contents

1. Change Control.....	3
2. Internet of Things (IoT) API Integration Guide.....	4
2.1. IoT RESTful API.....	4
2.2. Where to Start.....	4
3. Introduction.....	5
3.1. API Guidelines.....	5
3.2. Rate Limit.....	5
3.3. External URL.....	6
4. List of the Services.....	7
4.1. Get Token.....	7
4.1.1. URL.....	7
4.1.2. Input Parameters.....	7
4.1.3. Sample Request to Get Token.....	8
4.1.4. Sample Response to Get Token.....	8
4.1.5. Field Description.....	8
4.1.6. Error Codes.....	10
4.2. Get All IoT Events.....	10
4.2.1. URL.....	11
4.2.2. Input Parameters.....	11
4.2.3. Sample Response to Get All IoT Events.....	11
4.2.4. Field Description.....	12
4.2.5. Error Codes.....	14
4.3. Get All Active Shipments.....	15
4.3.1. URL.....	15
4.3.2. Input Parameters.....	15
4.3.3. Sample Response to Get All Active Shipments.....	15
4.3.4. Field Description.....	16
4.3.5. Error Codes.....	17

4.4. Get All IoT Events by Shipment Number.....	18
4.4.1. URL.....	18
4.4.2. Input Parameters.....	18
4.4.3. Sample Response to Get All IoT Events by Shipment Number.....	19
4.4.4. Field Description.....	20
4.4.5. Error Codes.....	22
4.5. Get the Last IoT Event by Active Shipment Number.....	23
4.5.1. URL.....	23
4.5.2. Input Parameters.....	23
4.5.3. Sample Response to Get the Last IoT Event by Active Shipment Number.....	23
4.5.4. Field Description.....	24
4.5.5. Error Codes.....	26
5. Appendix.....	28

1. Change Control

This section of the document contains the change control updates made to the content.

Table 1. Change Control Table

Version	Date	Author	Changes	Change Status
1.0	02/05/2023		First Draft of IoT API Documentation.	Published
1.1	02/02/2024		Revision	

Table 2. Distribution

Name	Title	Review/Approval
PSG Team Members	Implementation Analysts, Business Analyst	Review

The latest version of this document can be found on the Blume Global Documentation Central Repository.

2. Internet of Things (IoT) API Integration Guide

The latest version is: **v1.0**

This document outlines the Application Programming Interfaces (APIs) connected to the **Blume Internet of Things (IoT)**, known here into as “**IoT**”. The API in this document is the **IoT API**. These API interfaces allow **Blume Global** to securely share processed and stored **IoT** event messages with customers, according to agreed-upon visibility and security rules. Basically, **Blume Global** can give customers the **IoT** data they need in a safe and controlled way.

2.1. IoT RESTful API

<p>Introduction (on page 5)</p> <p>The primary audience for this document includes internal developers and partner developers who will integrate IoT with their systems. Additionally, the supply chain manager may refer to this document for integration context. A basic understanding of APIs, Hyper Text Transfer Protocol (HTTP), and Representational State Transfer (REST) may be required to understand the concepts described in this document.</p>	<p>List of the Services (on page 7)</p> <ul style="list-style-type: none">• Get Token (on page 7)• Get All IoT Events (on page 10)• Get All Active Shipments (on page 15)• Get All IoT Events by Shipment Number (on page 18)• Get the Last IoT Event by Active Shipment Number (on page 23)
--	--

2.2. Where to Start

We strongly recommend you start with the [Introduction \(on page 5\)](#) to learn the structure of the **IoT RESTful API**.

3. Introduction

Blume provides an extensive list of APIs to manage the information related to IoT on our platform.

These API interfaces allow **Blume Global** to securely share processed and stored **IoT** event messages with customers, according to agreed-upon visibility and security rules. Basically, **Blume Global** can give customers the **IoT** data they need in a safe and controlled way.

3.1. API Guidelines

The following are the API Guidelines:

- All requests must include base URL
- Each request must be called with one of the HTTP verbs – GET, POST, PUT, PATCH
- User must substitute valid values for mandatory and optional fields as and when required
- All the request and request parameters are case sensitive
- Data is returned in JSON format
- API attempts to conform to the design principles of Representational State Transfer (REST) and relevant W3C HTTP/1.1 standards
- Only use UTF-8 characters encoding. Parameter values should be converted to UTF-8 and URL encoded according to W3C standards.

3.2. Rate Limit

- All requests are subject to a rate limit
- Rate limiting restricts the number of times user can request resources from the API within a certain time window
- Each consumer is subject to a default rate limit of 1 request per minute
- If request exceed than defined rate limit, then HTTP "429 Too Many Requests" response will persist until the next hour begins.

3.3. External URL

To be whitelisted during implementation.

4. List of the Services

The description of each field has been provided in the following table:

Service Name	Type
Get Token (<i>on page 7</i>)	POST
Get All IoT Events (<i>on page 10</i>)	GET
Get All Active Shipment (<i>on page 15</i>)	GET
Get All IoT Events by Shipment Number (<i>on page 18</i>)	GET
Get last IoT Event for all ***Active Shipment (<i>on page 23</i>)	GET

4.1. Get Token

This API is designed to authenticate users and services by issuing a token upon successful authentication. This token is then used for subsequent requests to the API, ensuring secure access and interaction with the system's resources. It streamlines the process of verifying user credentials and managing session security.

4.1.1. URL

<https://api.blumesolutions.com//blume-iot-data-api/IoTEvent/findAll/oauth2/token?correlationId=%3CcorrelationId%3E>

4.1.2. Input Parameters

Parameter	Requirement	Description
correlationId	Mandatory	The correlationId attribute in the IoT API serves as a unique identifier for correlating API requests and responses. It facilitates tracking and linking multiple operations or transactions across the system, ensuring accurate alignment and troubleshooting of processes within IoT applications.

4.1.3. Sample Request to Get Token

```
{
  "client_id" : "<client_id>",
  "client_secret" : "<client_secret>",
  "grant_type" : "<grant_type>"
}
```

4.1.4. Sample Response to Get Token

```
{
  "access_token": "access_token",
  "expires_in": 7200,
  "token_type": "token_type"
}
```

4.1.5. Field Description



Attention: The field descriptions are for the reference purposes only.



Note: For secure access to our services, the ClientID and Client Secret are issued by the Blume Customer Support Group. Ensure to contact them for these essential credentials.

The field descriptions for the attributes listed in the JSON code block are provided below:

Table 3. Field Description Tables

Attribute Name	Type	Values	Description
client_id	String	xq5AEdO9NIE6q4 4AMLII6pUtZZxml DAv	The client_id attribute typically refers to a unique identifier assigned to applications or clients using an API. It is used in the context of OAuth and other authentication mechanisms to identify the client requesting access to server resources. This identifier helps in managing and securing API access by distinguishing between different clients.

Table 3. Field Description Tables (continued)

Attribute Name	Type	Values	Description
client_secret	String	8EdXeKrvDzAOI1j WnLoKfQZT2DVAnFhj	The client_secret is a confidential string known only to the application and the authorization server. It's used in conjunction with the client_id to authenticate the identity of the application to the server securely. This secret ensures that the access request is coming from an authorized source, providing an additional layer of security in API communication.
grant_type	String	client_credentials	The grant_type parameter specifies the method used to request an access token in OAuth 2.0. It determines the OAuth flow—such as authorization_code, refresh_token, password, or client_credentials—guiding how an application obtains the token. Each type serves different scenarios, from web applications using authorization codes to server-to-server communication with client credentials.
access_token	String	kTau7HJ2ZzV2oPg jOI8qiCCYznWNPzi	The access_token is a token that grants temporary access to an API. It's used in authentication and authorization processes, allowing the client to access protected resources on behalf of the user. The token is typically provided after successful authentication using one of the grant types in OAuth 2.0 and must be included in the request headers to access the API.
expires_in	String	7200	The expires_in parameter indicates the lifetime of an access token in seconds. After this period, the token

Table 3. Field Description Tables (continued)

Attribute Name	Type	Values	Description
			becomes invalid and cannot be used for API requests. To maintain access, a new token must be obtained, often using a refresh token if supported by the authentication flow.
token_type	String	bearer	The token_type parameter specifies the type of token issued by an authorization server. Commonly, this type is "Bearer", indicating that the provided access token must be presented as a Bearer token in API requests. It defines how the token is to be included in requests to access protected resources, ensuring the application adheres to the expected security protocol.

4.1.6. Error Codes



Note: Please email support@blumeglobal.com to speak with Blume Global Support if you require more information on specific error codes.

Table 4. Error Codes

Error Code	Error Type	Error Message
400	Bad Request	Invalid client authentication.
423	Too Many Requests	API rate limit exceeded.
500	Internal Server Error	Something went wrong. Please contact your administrator.

4.2. Get All IoT Events

This API allows users to retrieve IoT events that fall within a specific timestamp range, as compared to the Blume Received field. The description provides an overview of the API's primary features and explains the necessary steps to use it effectively.

4.2.1. URL

blume-iot-data-api/loTEvent/findAll?

correlationId=<correlationId>&fromDate=<fromDate>&toDate=<toDate>&page=<page>&size=<size>

4.2.2. Input Parameters

Parameter	Requirement	Description
Headers (token)	Mandatory	Authentication token for API access.
FromDate (format: yyyy-MM-dd HH:mm:ss.SSS)	Optional	The start date and time range for the IoT events to be retrieved.
ToDate (format: yyyy-MM-dd HH:mm:ss.SSS) (default: Current Date)	Optional	The end date and time range for the IoT events to be retrieved.
Page (default: 1, max: 50)	Optional	The page number of the results to be returned.
Size (default: 50, max: 1000)	Optional	The number of results to be returned per page.

4.2.3. Sample Response to Get All IoT Events

```
{
  "id": "23fef6a67-e389-4d10-b81f-e5797b28bc02",
  "createdBy": null,
  "createdTimestamp": null,
  "updatedBy": null,
  "updatedTimestamp": null,
  "blumeRcvDate": "2023-02-02 02:14:50.994",
  "reportedTimeStamp": "2023-02-02 03:13:00.000",
  "deviceId": "FSLB622350302",
  "assetPrefixNumber": "EMHU649682",
  "latitude": 41.807098388671878,
  "longitude": -87.63819885253906,
  "batteryVoltage": "6.5",
  "contents": false,
  "doorOpen": null,
  "city": "Chicago",
  "state": "IL",
  "street": "441 E 48th St",
}
```

```
"zipCode": null,
"country": "US",
"address": "441 E 48TH ST, CHICAGO, IL 60615, USA",
"geofenceName": null,
"direction": "North",
"speed": null,
"temperature": null,
"reference_num": "TEST",
"am_tracking_number": "EH53S67057",
"bol": "3955981CON"
"eventType": null,
"messageTimeZone": null,
}
```

4.2.4. Field Description

Attribute Names pertaining to date and time for example "createDttm" is represented as "MM-dd-yyyy HH:mm".



Attention: The field descriptions are for the reference purposes only.

The field descriptions for the attributes listed in the JSON code block are provided below:

Table 5. Field Description Tables

Attribute Name	Type	Values	Description
id	String	bd21f10b-d801-4ca5-96f6-7470f01e6164	A unique identifier for the IoT message.
createdBy	DateTime	IOT_VENDOR	The source of the event that generated the message.
createdTimestamp	DateTime	2023-02-02 02:14:50.994	The date and time when the event was created.
updatedBy	String	BLUME	The process that updated the message data.
updatedTimestamp	DateTime	2023-02-02 02:14:50.994	The date and time when the message was enriched with additional data.
blumeRcvDate	DateTime	2023-02-02 02:14:50.994	The date and time when the message was received by the Blume Global platform.

Table 5. Field Description Tables (continued)

Attribute Name	Type	Values	Description
reportedTimeSt amp	Datet ime	2023-02-02 02:14:50.994	The date and time when the device sent the message.
deviceId	String	FSLB622350302	The identifier of the IoT device that generated the message.
assetPrefixNum ber	String	ZQHU649682	The container number associated with the message.
latitude	String	41.80709839	The current latitude of the container.
longitude	String	-87.63819885	The current longitude of the container.
batteryVoltage	String	6.5	The current voltage of the device battery.
contents	String	true/false	The load status of the container.
doorOpen	boolean	true/false	Indicates whether the container's door is open or closed.
city	String	Chicago	The current city where the container is located.
state	String	IL	The current state where the container is located.
street	String	441 E 48th St	The current street where the container is located.
zipCode	String		The current ZIP code where the container is located.
country	String	US	The current country where the container is located.
address	String	441 E 48TH ST, CHICAGO, IL 60615, USA	The current address where the container is located.
geofenceName	String	XNSF – Commerce Fence	The name of the geofence where the container is located.
direction	String	North	The current direction where the container is headed.

Table 5. Field Description Tables (continued)

Attribute Name	Type	Values	Description
speed	String	38	The speed of the vehicle carrying the container.
temperature	String	19.9 C	The temperature inside the asset being monitored.
reference_num	String	TEST	A customer-specific reference number associated with the container.
am_tracking_number	String	ZH53S67O57	The shipment number associated with the container.
bol	String	3955981CON	The bill of lading associated with the container.
eventType	String	POSITIONAL_UPDATE	The event associated with the container.
messageTimezone	String	UTC	Timezone associated with the container location (UTC Default).

4.2.5. Error Codes



Note: Please email support@blumeglobal.com to speak with Blume Global Support if you require more information on specific error codes.

Table 6. Error Codes

Error Code	Error Type	Error Message
400	Bad Request	Size cannot be greater than 1000.
		Page cannot be greater than 50.
		fromDate can't be latest than toDate.
401	Unauthorized	The access token is missing.
		The access token is invalid or has expired.
404	Not Found	No records found for Org Code <OrgCode>.
		No records found for Org Code <OrgCode> for page <page>.

Table 6. Error Codes (continued)

Error Code	Error Type	Error Message
423	Too Many Requests	API rate limit exceeded.
500	Internal Server Error	Something went wrong. Please contact your administrator.

4.3. Get All Active Shipments

This API allows you to retrieve all reference numbers that identify active shipments for IMC by using the Blume AM Tracking Number as the shipment number.



Important: An active shipment is one that is associated with an active asset through the AM Tracking Number.

4.3.1. URL

blume-iot-data-api/IoTEvent/findAllActiveShipments?
correlationId=IOT&page=1&size=50

4.3.2. Input Parameters

Parameter	Requirement	Description
Headers (token)	Optional	Authentication token for API access.
Page (default: 1, max: 50)	Optional	The page number of the results to be returned.
Size (1000 by Default, 1000 max)	Optional	The number of results to be returned per page.

4.3.3. Sample Response to Get All Active Shipments

```
{
  "results": [
    {
      "assetPrefixNumber": "EMHU654046",
      "reference_num": null,
      "am_tracking_number": "EH53L98978",
      "latitude": 34.18989944458008,
      "longitude": -83.59649658203125,
    }
  ]
}
```

```

        "address": " 300 LOGISTICS CENTER PKWY, JEFFERSON, GA 30549,
        USA US 300 Logistics Center Pkwy GA Jefferson ",
        "geofenceName": null,
        "reportedTimeStamp": "2023-04-24 08:53:00.000",
        "deviceId": "FSLB622500575",
        "batteryVoltage": "8.0",
        "speed": null,
        "direction": "North",
        "doorOpen": false,
        "contents": true,
        "bol": null
    }
],
"correlationId": "IOT",
"status": "Success",
"successMessage": "Success",
"successCode": 200,
"pageableInfo": {
    "page": 1,
    "maxSize": 1,
    "count": 1
}
}

```

4.3.4. Field Description

Attribute Names pertaining to date and time for example "createDttm" is represented as "MM-dd-yyyy HH:mm".



Attention: The field descriptions are for the reference purposes only.

The field descriptions for the attributes listed in the JSON code block are provided below:

Table 7. Field Description Tables

Attribute Name	Type	Values	Description
reportedTimeSt amp	Datet ime	2023-02-02 02:14:50.994	The date and time when the device sent the message.
deviceId	String	FSLB622350302	The identifier of the IoT device that generated the message.
assetPrefixNum ber	String	ZQHU649682	The container number associated with the message.

Table 7. Field Description Tables (continued)

Attribute Name	Type	Values	Description
latitude	String	41.80709839	The current latitude of the container.
longitude	String	-87.63819885	The current longitude of the container.
batteryVoltage	String	6.5	The current voltage of the device battery.
contents	String	true/false	The load status of the container.
doorOpen	boolean	true/false	Indicates whether the container's door is open or closed.
address	String	441 E 48TH ST, CHICAGO, IL 60615, USA	The current address where the container is located.
geofenceName	String	XNSF – Commerce Fence	The name of the geofence where the container is located.
direction	String	North	The current direction where the container is headed.
speed	String	38	The speed of the vehicle carrying the container.
reference_num	String	TEST	A customer-specific reference number associated with the container.
am_tracking_number	String	ZH53S67057	The shipment number associated with the container.
bol	String	3955981CON	The bill of lading associated with the container.

4.3.5. Error Codes



Note: Please email support@blumeglobal.com to speak with Blume Global Support if you require more information on specific error codes.

Table 8. Error Codes

Error Code	Error Type	Error Message
400	Bad Request	Size cannot be greater than 1000.

Table 8. Error Codes (continued)

Error Code	Error Type	Error Message
		Page cannot be greater than 50.
		fromDate can't be latest than toDate.
401	Unauthorized	The access token is missing.
		The access token is invalid or has expired.
404	Not Found	No records found for Org Code <OrgCode>.
		No records found for Org Code <OrgCode> for page <page>.
423	Too Many Requests	API rate limit exceeded.
500	Internal Server Error	Something went wrong. Please contact your administrator.

4.4. Get All IoT Events by Shipment Number

You can use this API to retrieve all IoT events related to assets that are currently linked to a specific shipment number (AM Tracking Number) by providing a timestamp range and comparing it to the BlumeReceived field.

4.4.1. URL

blume-iot-data-api/IoTEvent/findByShipmentNumber/
<shipmentNumberfromDate=<fromDate>&todate=<toDate>&correlationId=<correlationId>&page=<page>

4.4.2. Input Parameters

Parameter	Requirement	Description
Headers (token)	Mandatory	Authentication token for API access.
Shipment Number	Mandatory	The unique identifier of the shipment for which IoT events are to be retrieved. This is typically the AM Tracking Number.

Parameter	Requirement	Description
FromDate (format: yyyy-MM-dd HH:mm:ss.SSS)	Optional	The start date and time range for the IoT events to be retrieved.
ToDate (format: yyyy-MM-dd HH:mm:ss.SSS) (default: Current Date)	Optional	The end date and time range for the IoT events to be retrieved.
Page (default: 1, max: 50)	Optional	The page number of the results to be returned.
Size (1000 by Default, 1000 max)	Optional	The number of results to be returned per page.

4.4.3. Sample Response to Get All IoT Events by Shipment Number

```
{
  "id": "23fefa67-e389-4d10-b81f-e5797b28bc02",
  "createdBy": null,
  "createdTimestamp": null,
  "updatedBy": null,
  "updatedTimestamp": null,
  "blumeRcvDate": "2023-02-02 02:14:50.994",
  "reportedTimeStamp": "2023-02-02 03:13:00.000",
  "deviceId": "FSLB622350302",
  "assetPrefixNumber": "EMHU649682",
  "latitude": 41.807098388671878,
  "longitude": -87.63819885253906,
  "batteryVoltage": "6.5",
  "contents": false,
  "doorOpen": null,
  "city": "Chicago",
  "state": "IL",
  "street": "441 E 48th St",
  "zipCode": null,
  "country": "US",
  "address": "441 E 48TH ST, CHICAGO, IL 60615, USA",
  "geofenceName": null,
  "direction": "North",
  "speed": null,
  "temperature": null,
  "reference_num": "TEST",
  "am_tracking_number": "EH53S67057",
  "bol": "3955981CON"
```

```
"eventType": null,
"messageTimeZone": null,
}
```

4.4.4. Field Description

Attribute Names pertaining to date and time for example "createDttm" is represented as "MM-dd-yyyy HH:mm".

! **Attention:** The field descriptions are for the reference purposes only.

The field descriptions for the attributes listed in the JSON code block are provided below:

Table 9. Field Description Tables

Attribute Name	Type	Values	Description
id	String	bd21f10b-d801-4ca5-96f6-7470f01e6164	A unique identifier for the IoT message.
createdBy	DateTime	IOT_VENDOR	The source of the event that generated the message.
createdTimestamp	DateTime	2023-02-02 02:14:50.994	The date and time when the event was created.
updatedBy	String	BLUME	The process that updated the message data.
updatedTimestamp	DateTime	2023-02-02 02:14:50.994	The date and time when the message was enriched with additional data.
blumeRcvDate	DateTime	2023-02-02 02:14:50.994	The date and time when the message was received by the Blume Global platform.
reportedTimestamp	DateTime	2023-02-02 02:14:50.994	The date and time when the device sent the message.
deviceId	String	FSLB622350302	The identifier of the IoT device that generated the message.
assetPrefixNumber	String	ZQHU649682	The container number associated with the message.
latitude	String	41.80709839	The current latitude of the container.

Table 9. Field Description Tables (continued)

Attribute Name	Type	Values	Description
longitude	String	-87.63819885	The current longitude of the container.
batteryVoltage	String	6.5	The current voltage of the device battery.
contents	String	true/false	The load status of the container.
doorOpen	boolean	true/false	Indicates whether the container's door is open or closed.
city	String	Chicago	The current city where the container is located.
state	String	IL	The current state where the container is located.
street	String	441 E 48th St	The current street where the container is located.
zipCode	String		The current ZIP code where the container is located.
country	String	US	The current country where the container is located.
address	String	441 E 48TH ST, CHICAGO, IL 60615, USA	The current address where the container is located.
geofenceName	String	XNSF – Commerce Fence	The name of the geofence where the container is located.
direction	String	North	The current direction where the container is headed.
speed	String	38	The speed of the vehicle carrying the container.
temperature	String	19.9 C	The temperature inside the asset being monitored.
reference_num	String	TEST	A customer-specific reference number associated with the container.
am_tracking_number	String	ZH53S67057	The shipment number associated with the container.

Table 9. Field Description Tables (continued)

Attribute Name	Type	Values	Description
bol	String	3955981CON	The bill of lading associated with the container.
eventType	String	POSITIONAL_UPD ATE	The event associated with the container.
messageTimeZ one	String	UTC	Timezone associated with the container location (UTC Default).

4.4.5. Error Codes



Note: Please email support@blumeglobal.com to speak with Blume Global Support if you require more information on specific error codes.

Table 10. Error Codes

Error Code	Error Type	Error Message
400	Bad Request	Size cannot be greater than 1000
		Page cannot be greater than 50
		fromDate can't be latest than toDate
401	Unauthorized	The access token is missing
		The access token is invalid or has expired
404	Not Found	No records found for Org Code <OrgCode> & Shipment Number <shipmentNumber>
		No records found for Org Code <OrgCode> & Shipment Number <ShipmentNumber> for page <Page>
423	Too Many Requests	API rate limit exceeded
500	Internal Server Error	Something went wrong. Please contact your administrator

4.5. Get the Last IoT Event by Active Shipment Number

You can use this API to fetch the latest IoT events for assets that are currently associated with a specific AM Tracking Number.

4.5.1. URL

blume-iot-data-api/loTEvent/findLatestEventByActiveShipments?
correlationId=<correlationId>&page=<page>&size=<size>

4.5.2. Input Parameters

Parameter	Requirement	Description
Headers (token)	Mandatory	Authentication token for API access.
Page (default: 1, max: 50)	Optional	The page number of the results to be returned.
Size (1000 by Default, 1000 max)	Optional	The number of results to be returned per page.

4.5.3. Sample Response to Get the Last IoT Event by Active Shipment Number

```
{
  "id": "23fef6a67-e389-4d10-b81f-e5797b28bc02",
  "createdBy": null,
  "createdTimestamp": null,
  "updatedBy": null,
  "updatedTimestamp": null,
  "blumeRcvDate": "2023-02-02 02:14:50.994",
  "reportedTimeStamp": "2023-02-02 03:13:00.000",
  "deviceId": "FSLB622350302",
  "assetPrefixNumber": "EMHU649682",
  "latitude": 41.807098388671878,
  "longitude": -87.63819885253906,
  "batteryVoltage": "6.5",
  "contents": false,
  "doorOpen": null,
  "city": "Chicago",
  "state": "IL",
  "street": "441 E 48th St",
  "zipCode": null,
  "country": "US",
}
```

```
"address": "441 E 48TH ST, CHICAGO, IL 60615, USA",
"geofenceName": null,
"direction": "North",
"speed": null,
"temperature": null,
"reference_num": "TEST",
"am_tracking_number": "EH53S67057",
"bol": "3955981CON"
"eventType": null,
"messageTimeZone": null,
}
```

4.5.4. Field Description

Attribute Names pertaining to date and time for example "createDttm" is represented as "MM-dd-yyyy HH:mm".

! **Attention:** The field descriptions are for the reference purposes only.

The field descriptions for the attributes listed in the JSON code block are provided below:

Table 11. Field Description Tables

Attribute Name	Type	Values	Description
id	String	bd21f10b-d801-4ca5-96f6-7470f01e6164	A unique identifier for the IoT message.
createdBy	Datetime	IOT_VENDOR	The source of the event that generated the message.
createdTimestamp	Datetime	2023-02-02 02:14:50.994	The date and time when the event was created.
updatedBy	String	BLUME	The process that updated the message data.
updatedTimestamp	Datetime	2023-02-02 02:14:50.994	The date and time when the message was enriched with additional data.
blumeRcvDate	Datetime	2023-02-02 02:14:50.994	The date and time when the message was received by the Blume Global platform.

Table 11. Field Description Tables (continued)

Attribute Name	Type	Values	Description
reportedTimeSt amp	Datet ime	2023-02-02 02:14:50.994	The date and time when the device sent the message.
deviceId	String	FSLB622350302	The identifier of the IoT device that generated the message.
assetPrefixNum ber	String	ZQHU649682	The container number associated with the message.
latitude	String	41.80709839	The current latitude of the container.
longitude	String	-87.63819885	The current longitude of the container.
batteryVoltage	String	6.5	The current voltage of the device battery.
contents	String	true/false	The load status of the container.
doorOpen	boolean	true/false	Indicates whether the container's door is open or closed.
city	String	Chicago	The current city where the container is located.
state	String	IL	The current state where the container is located.
street	String	441 E 48th St	The current street where the container is located.
zipCode	String		The current ZIP code where the container is located.
country	String	US	The current country where the container is located.
address	String	441 E 48TH ST, CHICAGO, IL 60615, USA	The current address where the container is located.
geofenceName	String	XNSF – Commerce Fence	The name of the geofence where the container is located.
direction	String	North	The current direction where the container is headed.

Table 11. Field Description Tables (continued)

Attribute Name	Type	Values	Description
speed	String	38	The speed of the vehicle carrying the container.
temperature	String	19.9 C	The temperature inside the asset being monitored.
reference_num	String	TEST	A customer-specific reference number associated with the container.
am_tracking_number	String	ZH53S67057	The shipment number associated with the container.
bol	String	3955981CON	The bill of lading associated with the container.
eventType	String	POSITIONAL_UPDATE	The event associated with the container.
messageTimezone	String	UTC	Timezone associated with the container location (UTC Default).

4.5.5. Error Codes



Note: Please email support@blumeglobal.com to speak with Blume Global Support if you require more information on specific error codes.

Table 12. Error Codes

Error Code	Error Type	Error Message
400	Bad Request	Size cannot be greater than 1000.
		Page cannot be greater than 50.
		fromDate can't be latest than toDate.
401	Unauthorized	The access token is missing.
		The access token is invalid or has expired.
404	Not Found	No records found for Org Code <OrgCode>.
		No records found for Org Code <OrgCode> for page <page>.

Table 12. Error Codes (continued)

Error Code	Error Type	Error Message
423	Too Many Requests	API rate limit exceeded.
500	Internal Server Error	Something went wrong. Please contact your administrator.

5. Appendix

Refer to your customer specific data requirements to ensure you are entering all information requested by your customer.

If you need a copy of your customer data requirements please contact Blume Global Support at support@blumeglobal.com.