Order API

Data Interface Document

Document Version: Draft 0.1

# SECTION 1: REVISION HISTORY

|  |  |  |  |
| --- | --- | --- | --- |
| **Document Version** | **Revision Date** | **Revised by** | **Revision** |
| Draft 0.1 | 10/26/2022 | Heather Youngblood | Initial Draft Version |

# SECTION 2: DOCUMENT APPROVALS

By signing below, you are approving the Data Interface Specifications in this document and authorizing, “J. Knipper and Company, Inc.” to implement the solution to transfer the documented files and/or data between J Knipper and Company Inc. (Knipper) and (Client). Any changes to these specifications after signoff would initiate the change control process and would need new approvals from all parties.

## 2.1: Peer Review

|  |  |  |
| --- | --- | --- |
| **Name, Title & Company** | **Signature** | **Date** |
|  |  |  |

## 2.2: Approved By

|  |  |  |
| --- | --- | --- |
| **Name, Title & Company** | **Signature** | **Date** |
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# SECTION 3: PROGRAM CONTACTS

## 3.1: (Client)

|  |  |  |
| --- | --- | --- |
| **Contact Name and Title** | **Phone** | **Email** |
|  |  |  |
|  |  |  |

## 3.2: J Knipper & Company Inc. (Service Provider)

|  |  |  |
| --- | --- | --- |
| **Contact Name and Title** | **Phone** | **Email** |
|  |  |  |
|  |  |  |

# SECTION 4: DOCUMENT PURPOSE

The purpose of this document is to provide detail description of the Knipper Samplicity APIs that (Client) will use to provide Knipper with fulfillment details. It will explain the goals and features of the system, the interfaces of the system, system behavior and the constraints under which it must operate and how the system will react to external provocations.

The document will also provide details on the (Client) Status API that Knipper will use to provide (Client) with order status updates

This document is intended for both the stakeholders and the developers of the system. This includes, but is not limited to Subject Matter Expert, Client, Professional Services (PS), Systems Analysts, and Software Developers, Project Managers, and Testing and Validation teams.

# SECTION 5: ASSUMPTIONS

1. (Client) will utilize Knipper’s generic Samplicity Order Request API to push order requests to Knipper for fulfillment.
2. An authentication token shall be passed for each Samplicity Order Request API request.
3. A maximum of one order will be passed with a maximum of 20 line items per order for each request.
4. Each individual order shall have a unique RequestID.
5. Knipper will respond to each unique order request with one of the response codes specified in this document.
6. The Samplicity Order Request API will not have any methods for updating or deleting an order once it is accepted by Knipper.
7. There will be two environments setup for hosting the web service. One will be for testing/UAT and the other would be for production. Each environment will have a different URL, which will be supplied to the client.
8. Knipper will utilize (Client) Status API to return order status, tracking and delivery details to (Client).

# SECTION 6: API FAILURE ESCALATION PROCESS

If Knipper or (Client) experience ongoing critical API failures, they will contact the “Escalation Contact List” individuals identified below the same day.

The escalation will be done to level 1 first. If the issue is not resolved in reasonable amount of time, then the issue is escalated to the next level depending upon urgency and severity.

## 6.1: Knipper Production Escalation Contact List:

|  |  |  |  |
| --- | --- | --- | --- |
| **Level** | **Name** | **Phone** | **Email** |
| 1 |  |  |  |
| 2 |  |  |  |

## 6.2: (Client) Production Escalation Contact List:

|  |  |  |  |
| --- | --- | --- | --- |
| **Level** | **Name** | **Phone** | **Email** |
| 1 |  |  |  |
| 2 |  |  |  |

# SECTION 7: API SPECIFICATIONS

The (Client) program shall employ the following APIs as part of the project flow.

|  |  |  |
| --- | --- | --- |
| **API Owner** | **API Name** | **API Description** |
| Knipper | Samplicity Authentication API | (Client) will call this API to obtain the authentication token required for the Samplicity Order Request API |
| Knipper | Samplicity Order Request API | (Client) will call this API to pass order request information to Knipper |
| (Client) | Status Update API | Knipper will call this API to pass order status updates to (Client) |

## 7.1: API 1: Samplicity Authentication API

This API shall consist of the following fields.

Knipper will provide (Client) with these field values separately prior to testing or go live

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | **API Field Name** | **Mandatory / Optional** | **Data Type / Length** | **Comments** |
| 1 | client\_id | Mandatory | Varchar(50) | Unique Client ID |
| 2 | client\_secret | Mandatory | Varchar (50) | Unique Client Secret ID |
| 3 | grant\_type | Mandatory | Varchar(50) | Authentication Type |
| 4 | resource | Mandatory | Varchar (50) | Restful Resource |

## 7.2: API 2: Samplicity Order Request API

This API shall consist of the following fields

| # | **API Field Name** | **Mandatory / Optional** | **Data Type / Length** | **Comments** |
| --- | --- | --- | --- | --- |
| 1 | programurl | Mandatory | Varchar(500) | Program URL  Knipper will provide this to (Client) prior to testing or go-live |
| 2 | requestid | Mandatory | Varchar(50) | Client unique request identifier |
| 3 | requestdate | Optional | Date | Format is [ISO E8601DZw.d](http://support.sas.com/documentation/cdl/en/leforinforref/64790/HTML/default/viewer.htm#p14nbxgmr6gn7tn1ntmuulgawrih.htm) |
| 4 | personid | Optional | Varchar(50) | Client unique person identifier |
| 5 | salutation | Optional | Varchar(5) | Recipient’s salutation  Examples: Mr / Mrs / Ms / Dr |
| 6 | firstname | Mandatory | Varchar (30)  See note below | Recipient’s first name |
| 7 | lastname | Mandatory | Varchar (30)  See note below | Recipient’s last name |
| 8 | suffix | Optional | Varchar(5) | Recipient’s suffix  Examples: Jr / Sr / III / IV |
| 9 | designation | Optional | Varchar(5) | Recipient’s professional designation |
| 10 | attentionto | Optional | Varchar(30) | Attention To First and Last Name |
| 11 | address1 | Mandatory | Varchar(50) | Recipient’s address line 1 |
| 12 | address2 | Optional | Varchar(50) | Recipient’s address line 2 |
| 13 | city | Mandatory | Varchar  See note below | Recipient’s city |
| 14 | stateCode | Mandatory | Varchar(2) | Recipient’s two character USPS state code |
| 15 | zipCode | Mandatory | Varchar(10) | Recipient’s zip code  Accepted formats are Zip (xxxxx) or Zip+4 (xxxxx-xxxx) |
| 16 | emailaddress | Optional | Varchar(100) | Recipient’s email address  Expected format is x@y.z |
| 17 | phonenumber | Optional | Varchar(12) | Recipient’s phone number  Expected format is xxx-xxx-xxxx |
| 18 | itemcode | Mandatory | Varchar(50) | Unique item identifier  Field is used to pass individual item codes or kit codes, which are made up of multiple items  ItemCode must match the ItemCode setup in Knipper systems |
| 19 | quantity | Mandatory | Int | Requested item code quantity  Must be greater than zero |

**Note:**

1. If the Combination of FirstName and LastName data exceeds 35 characters total, Knipper’s warehouse system will truncate the concatenated first and last name data.

2. Combination of City, StateCode and Zipcode data should not exceed 35 characters total.

3. Expectation is that (Client) is performing due diligence to ensure order request address is correct and shipable. Knipper will not be validating address information aside from verifying field data is meeting DIA format and field lengths.

## 7.3: API 3: Status Update API

This API shall consist of the following fields.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | **API Field Name** | **Mandatory / Optional** | **Data Type / Length** | **Comments** |
| 1 | Request Id | Mandatory | Varchar(50) | This is the RequestID provided by client in the Samplicity Order Request API |
| 2 | Vendor Request Id | Optional | Varchar(50) | Knipper can only provide this information if:   * API request is accepted AND * Status Description ≠ Rejected   If Status Description = Rejected, then this field will be blank |
| 3 | Tracking Number | Optional | Varchar (100) | Shipment Tracking number |
| 4 | Courier Name | Optional | Varchar (100) | Carrier Name  Example: UPS, FedEx |
| 5 | Status Id | Optional | Varchar(50) | Id for the status |
| 6 | Status Description | Mandatory | Varchar (100) | Knipper Order Status |
| 7 | Sub Status | Optional | Varchar (100) | Granular level of status.   * Will be used to provide reject reason when Status Description = Rejected * Will be used to provide return status when Status Description = Partially Returned or Returned |
| 8 | Shipment Date Time | Optional | Date | Date when the order is shipped.  Format is [ISO E8601DZw.d](http://support.sas.com/documentation/cdl/en/leforinforref/64790/HTML/default/viewer.htm#p14nbxgmr6gn7tn1ntmuulgawrih.htm) |
| 9 | Delivered Date Time | Optional | Date | Date when order is delivered.  Format is [ISO E8601DZw.d](http://support.sas.com/documentation/cdl/en/leforinforref/64790/HTML/default/viewer.htm#p14nbxgmr6gn7tn1ntmuulgawrih.htm) |
| 10 | Service | Optional | Varchar (100) | Carrier Service  Example: Next Day, Ground |

Knipper will provide the following statuses in the Status Description field:

|  |  |
| --- | --- |
| **Status Description** | **Comments** |
| Pending Approval | Order has been placed, but required approval before processing. This status will not apply to this program |
| On Hold | Order has been placed, but was set to a hold status before processing. |
| Submitted | Order has been placed and is available for processing. |
| Canceled | Order has been placed and has been canceled before shipping. |
| Rejected | Order has been rejected for one or more business rules. |
| Processed | Order has been processed and sent to warehouse for shipping. |
| Shipped | Order has been shipped. |
| Delivered | Order has been delivered. |
| Partially Returned | A portion of the order has been returned to the warehouse. |
| Returned | Entire order has been returned to the warehouse. |

# SECTION 8: API RESPONSE CODES

## 8.1: API 1: Samplicity Authentication API Response

Knipper shall sent the following responses for each unique request sent via the Samplicity Authentication API

| **Field** | **Comments** |
| --- | --- |
| access\_token | This is token is used to access Samplicity Order Request API |
| token\_type | Bearer |
| expires\_in | Duration of access token expiry |
| ext\_expires\_in | Extended lifetime of an access token |
| expires\_on | Duration of access token expiry |
| not\_before | Duration of access token expiry |
| resource | app id |

## 8.2: API 2: Samplicity Order Request API Response Codes

Knipper shall sent the following responses for each unique request sent via the Samplicity Order Request API

Please note that in the event of a Data Type Mismatch, automatic Json responses will be returned.

| **Code** | **Description** |
| --- | --- |
| 0 | Success |
| 1000 | API request not properly formed |
| 1001 | Request contains duplicate Item Codes |
| 1002 | ProgramURL is missing |
| 1003 | Program URL exceeds pre-defined field length |
| 1004 | Request ID is missing |
| 1005 | Request ID exceeds pre-defined field length |
| 1006 | Request Date is not a valid date |
| 1007 | Request Date exceeds pre-defined field length |
| 1008 | Request Date is a future date |
| 1009 | Person ID exceeds pre-defined field length |
| 1010 | Salutation exceeds pre-defined field length |
| 1011 | First Name is missing |
| 1012 | First Name exceeds pre-defined field length |
| 1013 | Last Name is missing |
| 1014 | Last Name exceeds pre-defined field length |
| 1015 | Suffix exceeds pre-defined field length |
| 1016 | Designation exceeds pre-defined field length |
| 1017 | AttentionTo exceeds pre-defined field length |
| 1018 | Address1 is missing |
| 1019 | Address1 exceeds pre-defined field length |
| 1020 | Address2 exceeds pre-defined field length |
| 1021 | City is missing |
| 1022 | City exceeds pre-defined field length |
| 1023 | State is missing |
| 1024 | State exceeds pre-defined field length |
| 1025 | Zip Code is missing |
| 1026 | Zip Code exceeds pre-defined field length |
| 1027 | Email Address exceeds pre-defined field length |
| 1028 | Phone Number exceeds pre-defined field length |
| 1029 | Item Code is missing |
| 1030 | Item Code exceeds pre-defined field length |
| 1031 | Quantity is missing |
| 1032 | Quantity exceeds pre-defined field length |
| 1033 | Quantity does not have a >=0 integer value |

## 8.3: API 3: Status API Response Codes

(Client) shall send the following responses for each unique status update sent via the Samplicity Order Request API

| **Code** | **Description** |
| --- | --- |
| 200 | OK |
| 201 | Created |
| 204 | No Content |
| 400 | Bad Request |
| 401 | Unauthorized |
| 403 | Forbidden |
| 404 | Not Found |
| 405 | Method Not Allowed |
| 429 | Too Many Requests |
| 500 | Internal Server Error |
| 501 | Not Implemented |
| 502 | Bad Gateway |
| 503 | Service Unavailable |
| 504 | Gateway Timeout |

# APPENDIX A