Informed Visibility®

IV-MTR API Developer Toolkit

v2.6.4

Contents

1 Introduction to the IV-MTR API

The Informed Visibility® Mail Tracking & Reporting (IV®-MTR) API leverages the power of the IV data platform to provide easy to consume micro-services for mail tracking data. IV-MTR API enables the mailing industry to integrate their mobile or web-based applications with near real-time IV data through a light-weight data exchange eliminating the overhead of data feeds.

IV-MTR provides near real-time tracking information for all letters, flats, and mail aggregates, which includes containers, handling units, and bundles – giving mailers visibility into their mailings and service, increasing the value of mail and enabling mailers to plan their mailings, measure success of each mailing campaign, and efficiently staff.

The IV-MTR API enables mailers to create an app that provides the exact data customers need, in near real-time, when and where they need it. This capability allows mailers to:

- Be proactive, rather than reactive to customer responses
- Close the gap between data generation and usable intelligence
- Increase efficiency and productivity of marketing strategy

The IV-MTR API allows mailers to develop apps that give them greater visibility into their mailings. With this new platform, mailers can create apps that provide insight such as:

- Accessing Mail Piece Data Fields and Scan Details
- Accessing Container/Tray Data Fields and Scan Details

The IV-MTR API will also enable mailers to automate administration of their data feeds and delegations.

2 Authentication and Authorization

To access the REST (Representational State Transfer) API, you must have a Business Customer Gateway (BCG) account with the IV-MTR service at the BSA or BSA Delegate Access Level. For instructions to register for a BCG account in Production and get the IV-MTR service, see the *Applying for Access to IV-MTR* document.

2.1 Testing the IV-MTR API in CAT

To test the IV-MTR API, users must register for a BCG account in the CAT environment. To do so, send a request to the Informed Visibility Solutions Center and a CAT user account will be created for you.

Send To: InformedVisibility@usps.gov
Subject: Request for IV-MTR API CAT Account

Details to include:

1. First & Last Name (of primary user)
2. E-mail Address (of primary user)
3. Phone number (of primary user)
4. Company Name
5. Business Address

3 Connection Details

The IV-MTR API will be available for testing at https://qiv.usps.com/ivws_api/informedvisapi and production use at https://iv.usps.com/ivws_api/informedvisapi. A standard REST client can be used for testing, such as the RESTClient extension for Mozilla Firefox.

The API uses OAuth authentication. An authentication token will need to be obtained by using your BCG credentials. This authentication token will then need to be passed into every API request that is made. See the sections below for more details.

The IV-MTR API only supports TLS 1.2 for the https connection. TLS 1.1, 1.0 and SSL 3 are not supported.

Connectivity details should be configurable (not hard-coded) as connectivity may change.

3.1 Obtaining the Authentication Token

To obtain an authentication token, you will need to submit a POST request to https://cat-services.usps.com/oauth/authenticate for testing and https://services.usps.com/oauth/authenticate for production use

1. Add a header to your request for *Content-Type: application/json*
2. Add the following JSON data to your POST request, only replace the username and password with your BCG credentials

```
{
  "username": "IVuser",
  "password": "password",
  "grant_type": "authorization",
  "response_type": "token",
  "scope": "user.info.ereg,iv1.apis",
  "client_id": "687b8a36-db61-42f7-83f7-11c79bf7785e"
}
```

3. Submit your request. A sample of a valid request to authentication service in the test environment is pasted below:

```
curl -X POST -k -H 'Content-Type: application/json' -i 'https://cat-
services.usps.com/oauth/authenticate' --data '{
  "username": "IVuser",
  "password": "password",
  "grant_type": "authorization",
  "response_type": "token",
  "scope": "user.info.ereg,iv1.apis",
  "client_id": "687b8a36-db61-42f7-83f7-11c79bf7785e"
}'
```

The response will look like the following:

```
{
  "token_type": "Bearer",
  "access_token": "abcd==",
  "expires_in": 900,
  "refresh_token": "wxyz=="
}
```

4. The authentication token is valid for 15 minutes. At any time, you may use the refresh_token value to request another authentication token without needing the username/password for convenience. You can do this by submitting a request to https://cat-services.usps.com/oauth/token in the test environment and https://services.usps.com/oauth/token in the production environment with the following request:

```
curl -X POST -k -H 'Content-Type: application/json' -i 'https://cat-
services.usps.com/oauth/token' --data '{
  "refresh_token": "wxyz==",
  "grant_type": "authorization",
  "response_type": "token",
  "scope": "user.info.ereg,iv1.apis"
}'
```

The response will look like the following:

```
{
  "token_type": "Bearer",
  "access_token": "abcd==",
  "expires_in": 900
}
```

3.2 Accessing the API using the Authentication Token

You will need to use the access_token value from the authentication response and use it in an authorization header in every request to the API by adding an Authorization header in the following format: *Authorization: Bearer abcd==*

Submit your request to the API with this header to get back data. A sample of a valid request to the IV API in the test environment is pasted below:

```
curl -X GET -k -H 'Authorization: Bearer abcd==' -i
'https://qiv.usps.com/ivws_api/informedvisapi/api'
```

3.3 Request Parameters

The REST services accept path parameters, so any parameters will be included as part of the URL based on the signature of the service URL.

Note that any date parameters should be in the format YYYY-MM-DD.

3.4 Response Object

Data is returned encapsulated in a response object. The response object contains two fields: message and data. For successful requests, the message will be null and data will contain the response. For failed requests, data will be null, and message will contain an error message.

An example successful response is shown below:

```
{
      "data": {<Delegation Object>},
      "message": null
}
```

An example failure response is below:

```
{
      "data": null,
      "message": “User is not authorized to view data”
}
```

3.5 Rate Limit

The IV-MTR API is limited to processing 500 requests per minute per CRID. Any requests received in excess of this rate will give the following response with an HTTP 429 error:

```
      "Too many requests. Please try again later.”
```

Requests that receive this error will not be processed and will need to be resubmitted once additional request tokens are generated.

4 Service Catalog

The root URL for all services will be:

https://qiv.usps.com/ivws_api/informedvisapi for the test environment and

https://iv.usps.com/ivws_api/informedvisapi for the production environment.

4.1 Mail Tracking Service Catalog

4.1.1 Piece Tracking Web Services

The Piece Tracking APIs are a set a web services that allow users to look up an IMb and retrieve data fields and scans.

Note: Only the Get Piece by IMb (business reply mail) supports Business Reply Mail. Business Reply Mail is identified by pieces with a STID of 030, 031, 032, 050, 051, 052, 070, 071, 072, 701, 703, 708, 777, 778, or 779.

4.1.1.1 Get Piece by IMb

Endpoint URL:

GET /api/mt/get/piece/imb/{imb}

Request Parameters:

Element Name	Payload Field	Type	Required?
IMb	imb	String	Y

Response Data Definition

Element Name	Payload Field	Type	Required?
IMb	imb	String	Y
Piece ID	piece_id	String	Y
Mail Class	mail_class	String	Y
Mail Shape	mail_shape	String	Y
eDoc Job ID	edoc_job_id	String	N
eDoc Submitter CRID	edoc_submitter_crid	String	N
Parent Container eDoc IMCb	parent_container_edoc_imcb	Array<String>	N
Parent Tray eDoc IMTb	parent_tray_edoc_imct	Array<String>	N
Anticipated Delivery Date	anticipated_delivery_date	String	N
Expected Delivery Date	expected_delivery_date	String	N
Start the Clock Date	start_the_clock_date	String	N
Start the Clock Facility City	start_the_clock_facility_city	String	N

Element Name	Payload Field	Type	Required?
Start the Clock Facility Locale Key	start_the_clock_facility_locale_key	String	N
Start the Clock Facility Name	start_the_clock_facility_name	String	N
Start the Clock Facility State	start_the_clock_facility_state	String	N
Start the Clock Facility ZIP	start_the_clock_facility_zip	String	N
Scans	scans	Array<Scan>	N

Scan Data Definition

Element Name	Payload Field	Type	Required?
Scan Date/Time	scan_date_time	String	Y
Scan Event Code	scan_event_code	String	Y
Scan Facility Name	scan_facility_name	String	N
Scan Facility City	scan_facility_city	String	N
Scan Facility State	scan_facility_state	String	N
Scan Facility ZIP	scan_facility_zip	String	N
Scan Facility Locale Key	scan_facility_locale_key	String	N
Scanner Type	scanner_type	String	N
Mail Phase	mail_phase	String	N
Machine Name	machine_name	String	N
Handling Event Type	handling_event_type	String	N

Sample Response:


```
{
  "message": null,
  "data": {
    "piece_id": "905d42f9-8920-11e8-8611-5553abcdfa9c",
    "mail_class": "First-Class Reply",
    "start_the_clock_facility_city": "SAN ANTONIO",
    "start_the_clock_facility_zip": "78284",
    "mail_shape": "Letter",
    "expected_delivery_date": "2018-06-04",
    "start_the_clock_facility_state": "TX",
    "edoc_submitter_crid": "20490640",
    "anticipated_delivery_date": "2018-06-04",
    "edoc_job_id": null,
    "parent_container_edoc_imcb": [
      "83081241110637727768 1234"
    ],
    "scans": [
      {
        "scan_date_time": "2018-06-06T11:44:32",
        "scanner_type": "MPE",
        "scan_facility_zip": "90052",
        "mail_phase": "Phase 2 - Destination Processing",
```

```
      "device_id": "DBCS-057",
      "scan_facility_locale_key": "Z24121",
      "scan_event_code": "898",
      "handling_event_type": "A",
      "scan_facility_state": "CA",
      "scan_facility_name": "LOS ANGELES",
      "scan_facility_city": "LOS ANGELES"
    }
   ],
   "start_the_clock_facility_locale_key": "W26439",
   "parent_tray_edoc_imct": [
    "83081241110637727768 1234"
   ],
   "start_the_clock_facility_name": "SAN ANTONIO",
   "start_the_clock_date": "2018-06-01",
   "imb": "00243107532191607362376603218 39"
  }
}
```


Supported Response Codes

Code	Explanation
200	Ok
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error

4.1.1.2 Get Piece Barcodes by MID, Serial Number, STID, or Routing Code

Endpoint URLs:

GET /api/mt/get/piece/mid/{mid}/serial/{serial}
GET /api/mt/get/piece/mid/{mid}/serial/{serial}/stid/{stid}
GET /api/mt/get/piece/mid/{mid}/serial/{serial}/routingCode/{routingCode}
GET /api/mt/get/piece/mid/{mid}/serial/{serial}/stid/{stid}/routingCode/{routingCode}

Request Parameters:

Element Name	Payload Field	Type	Required?
Mailer ID	mid	String	Y
Serial Number	serial	String	Y
STID	stid	String	N
Routing Code	routingCode	String	N

Response Data Definition

Element Name	Payload Field	Type	Required?
Barcodes	barcodes	Array<String>	N

Sample Response:


```
{
```

```
  "message": null,
  "data": {
    "barcodes": [
      " 00243107532191607362376603218 39"
    ]
  }
}
```


Supported Response Codes

Code	Explanation
200	**Ok**
403	**Unauthorized User**
404	**Server could not be reached**
500	**Internal Server Error**

4.1.1.3 Get Piece by IMb (Business Reply Mail)

Endpoint URL:

GET /api/mt/get/piece/list/imb/{imb}/date/{date}

Request Parameters:

Element Name	Payload Field	Type	Required?
IMb	imb	String	Y
date	date	date	Y

Response Data Definition

Element Name	Payload Field	Type	Required?
IMb	imb	String	Y
Piece ID	piece_id	String	Y
Mail Class	mail_class	String	Y
Mail Shape	mail_shape	String	Y
eDoc Job ID	edoc_job_id	String	N
eDoc Submitter CRID	edoc_submitter_crid	String	N
Parent Container eDoc IMCb	parent_container_edoc_imcb	Array<String>	N
Parent Tray eDoc IMTb	parent_tray_edoc_imct	Array<String>	N
Anticipated Delivery Date	anticipated_delivery_date	String	N
Expected Delivery Date	expected_delivery_date	String	N
Start the Clock Date	start_the_clock_date	String	N
Start the Clock Facility City	start_the_clock_facility_city	String	N
Start the Clock Facility Locale Key	start_the_clock_facility_locale_key	String	N

Start the Clock Facility Name	start_the_clock_facility_name	String	N
Start the Clock Facility State	start_the_clock_facility_state	String	N
Start the Clock Facility ZIP	start_the_clock_facility_zip	String	N
Scans	scans	Array<Scan>	N

Scan Data Definition

Element Name	Payload Field	Type	Required?
Scan Date/Time	scan_date_time	String	Y
Scan Event Code	scan_event_code	String	Y
Scan Facility Name	scan_facility_name	String	N
Scan Facility City	scan_facility_city	String	N
Scan Facility State	scan_facility_state	String	N
Scan Facility ZIP	scan_facility_zip	String	N
Scan Facility Locale Key	scan_facility_locale_key	String	N
Scanner Type	scanner_type	String	N
Mail Phase	mail_phase	String	N
Machine Name	machine_name	String	N
Handling Event Type	handling_event_type	String	N

Sample Response:


```
{
  "message": null,
  "data": {
          [
             "piece_id": "905d42f9-8920-11e8-8611-5553abcdfa9c",
             "mail_class": "First-Class Reply",
             "start_the_clock_facility_city": "SAN ANTONIO",
             "start_the_clock_facility_zip": "78284",
             "mail_shape": "Letter",
             "expected_delivery_date": "2018-06-04",
             "start_the_clock_facility_state": "TX",
             "edoc_submitter_crid": "20490640",
             "anticipated_delivery_date": "2018-06-04",
             "edoc_job_id": null,
             "parent_container_edoc_imcb": [
               "83081241110637727768 1234"
             ],
             "scans": [
               {
                 "scan_date_time": "2018-06-06T11:44:32",
                 "scanner_type": "MPE",
                 "scan_facility_zip": "90052",
                 "mail_phase": "Phase 2 - Destination Processing",
                 "device_id": "DBCS-057",
```

```
            "scan_facility_locale_key": "Z24121",
            "scan_event_code": 898",
            "handling_event_type": "A",
            "scan_facility_state": "CA",
            "scan_facility_name": "LOS ANGELES",
            "scan_facility_city": "LOS ANGELES"
          }
        ],
        "start_the_clock_facility_locale_key": "W26439",
        "parent_tray_edoc_imct": [
          "83081241110637727768 1234"
        ],
        "start_the_clock_facility_name": "SAN ANTONIO",
        "start_the_clock_date": "2018-06-01",
        "imb": "00243107532191607362376603218 39"
      }
    ]
}
```


Supported Response Codes

Code	Explanation
200	Ok
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error

4.1.2 Container Web Services

The Container APIs are a set a web services that allow users to look up an IMcb and retrieve data fields and scans.

4.1.2.1 Get Container by IMcb

Endpoint URL:

GET / api/mt/v1/container/imcb/{imcb}

Request Parameters:

Element Name	Payload Field	Type	Required?
IMcb	**imcb**	**String**	**Y**

Response Data Definition

Element Name	Payload Field	Type	Required?	Description
IMcb	**imcb**	**String**	**Y**	**The unique barcode ID**
Container ID	**container_id**	**String**	**Y**	**The container's object ID**

Element Name	Payload Field	Type	Required?	Description
Mail Class	mail_class	String	Y	The mail class in use. Options are: TBD
Mail Shape	mail_shape	String	Y	The mail shape in use. Options are: TBD
eDoc Job ID	edoc_job_id	String	N	job_id
eDoc Submitter CRID	edoc_submitter_crid	String	N	
eDoc Container ZIP	edoc_container_zip	String	N	
FAST Appointment ID	appointment_id	String	N	
FAST Appointment Scheduled DateTime	appointment_schd_dtm	String	N	
FAST Appointment Upload Start Time	appointment_start_tm	String	N	
FAST Appointment Upload End Time	appointment_end_tm	String	N	
eDoc CSA Agreement ID	csa_agrm_id	String	N	
Tray Count	tray_cnt	Int	N	
Piece Count	piece_cnt	Int	N	
Start the Clock Date	start_the_clock_date	String	N	
Start the Clock Facility City	start_the_clock_facility_city	String	N	
Start the Clock Facility Locale Key	start_the_clock_facility_locale_key	String	N	
Start the Clock Facility Name	start_the_clock_facility_name	String	N	
Start the Clock Facility State	start_the_clock_facility_state	String	N	
Start the Clock Facility ZIP	start_the_clock_facility_zip	String	N	
Scans	scans	Array< Scan>	N	

Scan Data Definition

Element Name	Payload Field	Type	Required?
Scan Date/Time	scan_date_time	String	Y
Scan Event Code	scan_event_code	String	Y
Scan Facility Name	scan_facility_name	String	N
Scan Facility City	scan_facility_city	String	N

Element Name	Payload Field	Type	Required?
Scan Facility State	scan_facility_state	String	N
Scan Facility ZIP	scan_facility_zip	String	N
Scan Facility Locale Key	scan_facility_locale_key	String	N
Machine Name	machine_name	String	N
Handling Event Type	handling_event_type	String	N

Sample Response:


```
{
  "message": null,
  "data": {
    "mail_class": "First Class",
    "appointment_end_tm": null,
    "edoc_container_zip": "615",
    "start_the_clock_facility_city": null,
    "start_the_clock_facility_zip": "61301",
    "mail_shape": "Letter",
    "appointment_id": null,
    "start_the_clock_facility_state": null,
    "tray_cnt": 2,
    "edoc_submitter_crid": "20418300",
    "edoc_job_id": "ANSIRUH",
    "csa_agrm_id": null,
    "imcb": "99M899632000000000511",
    "appointment_schd_dtm": null,
    "piece_cnt": 103,
    "appointment_start_tm": null,
    "start_the_clock_facility_locale_key": "Test1234",
    "start_the_clock_facility_name": "Test Facility Name",
    "start_the_clock_date": "2017-01-18",
    "container_id": "2fb92a20-cd97-11e8-bd6c-dbe982e9c785",
    "scans": [
      {
        "scan_date_time": "2018-09-26T08:43:52",
        "scan_facility_zip": "01546",
        "scan_machine_name": "IMDAS",
        "scan_facility_locale_key": "V27659",
        "scan_event_code": "868",
        "scan_facility_state": "MA",
        "handling_event_type": "Actual",
        "scan_facility_name": "CENTRAL",
        "scan_facility_city": "SHREWSBURY"
      },
      {
        "scan_date_time": "2018-10-01T12:05:24",
        "scan_facility_zip": "60499",
        "scan_machine_name": "SV",
        "scan_facility_locale_key": "W12009",
```

```
      "scan_event_code": null,
      "scan_facility_state": "IL",
      "handling_event_type": "Actual",
      "scan_facility_name": "SOUTH SUBURBAN",
      "scan_facility_city": "BEDFORD PARK"
    }
   ]
  }
}
```


Supported Response Codes

Code	Explanation
200	Ok
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error

4.1.3 Tray Web Services

The Tray APIs are a set a web services that allow users to look up an IMtb and retrieve data fields and scans.

4.1.3.1 Get Tray by IMtb

Endpoint URL:

GET / api/mt/v1/tray/imtb/{imtb}

Request Parameters:

Element Name	Payload Field	Type	Required?
IMtb	imtb	String	Y

Response Data Definition

Element Name	Payload Field	Type	Required?
IMtb	imtb	String	Y
Tray ID	tray_id	String	Y
Mail Class	mail_class	String	Y
Mail Shape	mail_shape	String	Y
eDoc Job ID	edoc_job_id	String	N
eDoc Submitter CRID	edoc_submitter_crid	String	N
eDoc CSA Agreement ID	csa_agrm_id	String	N
Piece Count	piece_cnt	Int	N
Parent Container eDoc IMCb	parent_container_edoc_imcb	Array<String>	N
Start the Clock Date	start_the_clock_date	String	N
Start the Clock Facility City	start_the_clock_facility_city	String	N

Element Name	Payload Field	Type	Required?
Start the Clock Facility Locale Key	start_the_clock_facility_locale_key	String	N
Start the Clock Facility Name	start_the_clock_facility_name	String	N
Start the Clock Facility State	start_the_clock_facility_state	String	N
Start the Clock Facility ZIP	start_the_clock_facility_zip	String	N
Scans	scans	Array<Scan>	N

Scan Data Definition

Element Name	Payload Field	Type	Required?
Scan Date/Time	scan_date_time	String	Y
Scan Event Code	scan_event_code	String	Y
Scan Facility Name	scan_facility_name	String	N
Scan Facility City	scan_facility_city	String	N
Scan Facility State	scan_facility_state	String	N
Scan Facility ZIP	scan_facility_zip	String	N
Scan Facility Locale Key	scan_facility_locale_key	String	N
Scan Machine Name	machine_name	String	N
Handling Event Type	handling_event_type	String	N

Sample Response:


```
{
  "message": null,
  "data": {
    "mail_class": "Standard",
    "imtb": "77019564110651801024574l",
    "start_the_clock_facility_city": null,
    "start_the_clock_facility_zip": null,
    "mail_shape": "Letter",
    "start_the_clock_facility_state": null,
    "edoc_submitter_crid": "4464860",
    "tray_id": "af493030-c31c-11e8-bd28-db958cdec642",
    "edoc_job_id": "00204750",
    "csa_agrm_id": null,
    "parent_container_edoc_imcb": "99M106518000000234532",
    "piece_cnt": 727,
    "start_the_clock_facility_locale_key": null,
    "start_the_clock_facility_name": null,
    "start_the_clock_date": null,
    "scans": [
      {
        "scan_date_time": "2018-09-28T22:32:22",
        "scan_facility_zip": "77315",
        "scan_machine_name": null,
        "scan_facility_locale_key": "W24934",
```

```
      "scan_event_code": "695",
      "scan_facility_state": "TX",
      "handling_event_type": "Actual",
      "scan_facility_name": "NORTH HOUSTON",
      "scan_facility_city": "NORTH HOUSTON"
    },
    {
      "scan_date_time": "2018-09-28T21:03:04",
      "scan_facility_zip": "77315",
      "scan_machine_name": null,
      "scan_facility_locale_key": "W24934",
      "scan_event_code": "873",
      "scan_facility_state": "TX",
      "handling_event_type": "Assumed Actual",
      "scan_facility_name": "NORTH HOUSTON",
      "scan_facility_city": "NORTH HOUSTON"
    }
  ]
 }
}
```


Supported Response Codes

Code	Explanation
200	Ok
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error

4.1.4 Aggregate Web Services

The aggregate APIs are a set a web services that allow users to query a job and retrieve aggregated container, tray, and piece counts to reflect the status of processing and delivery. The counts will reflect the current scan statuses of mail, I.E. once a piece is delivered it will no longer be reflected in the ACCEPTED_PIECE or IN_PROCESSING_PIECE counts.

4.1.4.1 Get Aggregates For Job

Endpoint URL:

GET /api/aggregate/job/{job}

Request Parameters:

Element Name	Payload Field	Type	Required?	Description
job	job	String	Y	ID of the job; E.g. 9728412

Query Parameters:

Element Name	Payload Field	Type	Required?	Description	Note

crid	crid	String	N		
mid	mid	String	N		
state	state	String	N	2 Character abbreviation ;E.g. VA	Select max 1 option
zip3	zip3	String	N		
zip5	zip5	String	N		

Note: Only one of (state/zip3/zip5) should be used

Response Data Definition

Element Name	Payload Field	Type	Required?
container	container	ContainerAggregate	Y
tray	tray	TrayAggregate	Y
piece	piece	PieceAggregate	Y

ContainerAggregate Data Definition

Element Name	Payload Field	Type	Required?
EXPECTED_CONTAINER	EXPECTED_CONTAINER	String	N
ACCEPTED_CONTAINER	ACCEPTED_CONTAINER	String	N
IN_PROCESSING_CONTAINER	IN_PROCESSING_CONTAINER	String	N

TrayAggregate Data Definition

Element Name	Payload Field	Type	Required?
EXPECTED_TRAY	EXPECTED_TRAY	String	N
ACCEPTED_TRAY	ACCEPTED_TRAY	String	N
IN_PROCESSING_TRAY	IN_PROCESSING_TRAY	String	N

PieceAggregate Data Definition

Element Name	Payload Field	Type	Required?
EXPECTED_PIECE	EXPECTED_PIECE	String	N
ACCEPTED_PIECE	ACCEPTED_PIECE	String	N
IN_PROCESSING_PIECE	IN_PROCESSING_PIECE	String	N
DELIVERED_PIECE	DELIVERED_PIECE	String	N

Sample Request:

/api/aggregate/job/9728412?zip3=183
/api/aggregate/job/9728412?crid=29494503&zip5=32168
/api/aggregate/job/9728412?mid=910055682&state=VA

Sample Response:


```
{
    "message": null,
    "data": {
        "container": {
```

```
            "EXPECTED_CONTAINER": "4"
                  "ACCEPTED_CONTAINER": "2"
                  "IN_PROCESSING_CONTAINER": "2"
        },
        "tray": {
            "EXPECTED_TRAY": "7"
                  "ACCEPTED_TRAY": "1"
                  "IN_PROCESSING_TRAY": "6"
        },
        "piece": {
            "EXPECTED_PIECE": "1250",
                  "ACCEPTED_PIECE": "50"
                  "IN_PROCESSING_PIECE": "200"
                  "DELIVERED_PIECE ": "1000"
        }
    }
}
```

4.2 Admin API Service Catalog

The Admin API is a set of web services that support reading and writing data for the IV-MTR application.

4.2.1 Delegation Web Services

4.2.1.1 Load Delegation

Endpoint URL:

GET /api/mt/v1/delegation/<delegationType>

Request Parameters:

Element Name	Payload Field	Type	Required?	Description
Delegation Type	delegationType	String	Y	Options are: “delegatedToMe”, “delegatedToOthers”

Response Data Definition

Element Name	Payload Field	Type	Required?	Description
Delegation ID	delegationId	UUID	Y	Unique Id
Delegating CRID	delegatingCrid	String	Y	
Delegating Company Name	delegatingCompany Name	String	Y	
Delegating MID	delegatingMid	String	Y	Will either be a single mid or “ALL”
Delegating MIDs	delegatingMids	List<String>	Y	List of MIDs included in the delegation. Will either be a single MID, or all MIDs

Element Name	Payload Field	Type	Required?	Description
				currently associated to the CRID.
Receiving CRID	receivingCrid	String	N	
Receiving Company Name	receivingCompanyName	String	Y	
Receiving Mid	receivingMid	String	Y	Will either be a single mid or “ALL”
Receiving Mids	receivingMids	List<String>	Y	List of MIDs receiving the delegated data. Will either be a single MID, or all MIDs currently associated to the CRID.
Mail Object Type	mailObjectType	String	Y	Options are: “Container”, “Handling Unit”, “Bundle”, “Piece”
Handling Event Types	handlingEventTypes	List<String>	Y	Options are: “Actual”, “Assumed Actual”, “Assumed Logical”, “Logical”
Created Date	createdDate	String	Y	Format is “YYYY-MM-DD HH:mm:ss”
Created User	createdUser	String	Y	
Last Update User	lastUpdateUser	String	Y	
Last Update Date	lastUpdateDate	String	Y	Format is “YYYY-MM-DD HH:mm:ss”

Example Response


```
{
        “message”: null,
        "data" :{
                “delegations”:
                [
                {
                        "delegationId" : "850eea9f-1af5-412c-b446-8fc28e2e70a0",
                        "delegatingCrid" : "33322211",
                        "delegatingCompanyName" : "Acme Corp",
                        "delegatingMid" : "944443321",
                        "delegatingMids" : ["944443321"],
                        "receivingCrid": "22211133",
                        "receivingCompanyName": "Knight Services",
                        "receivingMid" : "ALL",
                        "receivingMids" : ["641123", "641124"],
```

```
                    "mailObjectType" : "Container" ,
                    "handlingEventTypes" :[ "Actual", "Assumed Actual", "Assumed Logical",
"Logical" ],
                    "createdDate" : "2018-07-12 14:00:00",
                    "createdUser" : "myUser",
                    “lastUpdateDate”: “2018-07-12 14:00:00",
                    “lastUpdateUser”:”myUser”
                }
        ]
}
```


Supported Response Codes

Code	Explanation
200	Ok
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error

4.2.2 Feed Web Services

4.2.2.1 Load Feed

Endpoint URL:

GET /api/mt/v1/feed

Request Parameters: None

Response Data Definition:

Element Name	Payload Field	Type	Required?	Description
Feed ID	feedId	UUID	Y	Unique Id
Feed Name	feedName	String	Y	
Target	targets	Array<Target>	Y	See below table for target definition
File Format	fileFormat	String	Y	Options are: “delimited”, “pkg”, “json”, “mailXML12A”, “mailXML12B”, “mailXML14A”, “mailXML16”

Element Name	Payload Field	Type	Required?	Description
Delimiter	delimiter	String	N	Options are: “,”, “tab”, <other character>
Zipped Indicator	zippedInd	boolean	Y	
Scheduled Start Time	scheduledStartTime	String	Y	Format is yyyy-mm-dd HH:mm:ss
Scheduled Time Zone	scheduledStartTz	String	Y	Options are: “US/Puerto_Rico”, “US/Eastern”, “US/Central”, “US/Mountain”, “US/Pacific”
Frequency	frequency	Int	Y	
Frequency Units	frequencyUnits	String	Y	Options are: “MINUTES”, “HOURS”, “DAYS”
Fields	fields	List<String>	Y	Feed Data Fields (See Appendix)
Active Indicator	activeInd	boolean	Y	
Email Notification on Success Indicator	emailSuccessInd	boolean	Y	Send email on success
Email Notification on Failure Indicator	emailFailureInd	boolean	Y	Send email on failure
Notification Email	emails	List<String>	N	Required if emailSuccessInd or emailFailureInd is true
Owner Crid	ownerCrid	String	Y	
Owner Crid Company	ownerCridCompany Name	String	Y	
Entity	entity	Entity	N	See Load Saved Entity for entity definition.
Mail Object Type	mailObjectType	String	Y	Options are: “Container”, “Handling Unit”, “Bundle”, “Piece”
Handling Event Types	handlingEventTypes	List<String>	Y	Options are: “Actual”, “Assumed Actual”, “Assumed Logical”, “Logical”

Element Name	Payload Field	Type	Required?	Description
Created Date	createdDate	String	Y	Format is “YYYY-MM-DD HH:mm:ss”
Created User	createdUser	String	Y	
Last Update User	lastUpdateUser	String	Y	
Last Update Date	lastUpdateDate	String	Y	Format is “YYYY-MM-DD HH:mm:ss”

Target:

Element Name	Payload Field	Type	Required?	Description
Address Book Id	addressBookId	UUID	Y	Unique ID
Host Description	hostDescription	String	Y	Target Description
Host Address	hostAddress	String	N	Host Address
Port	port	int	N	

Sample Response


```
{
        “message”: null,
        "data" :{
                “feeds”:
                [
                {
                        "feedId" : "950eea9f-1af5-412c-b446-8fc28e2e70b2",
                        "feedName" : "33322211 Container Scans",
                        "targets" :
                         [
                                "addressBookId":"230eea9f-1af5-412c-b446-8fc28e2e70f3",
                                "hostDescription":"Test Target Server",
                                "hostAddress":"192.168.1.1",
                                “port”:22
                        ],
                        "fileFormat" : "delimited",
                        "delimiter" : ",",
                        "zippedInd" : true,
                        "scheduledStartTime" : "2018-08-01 00:00:00",
                        "scheduledStartTz" : "US/Eastern”
                        "frequency" : "4",
                        "frequencyUnits" : "HOURS",
                        “fields”:
                        [
                                “Start the Clock Date”,
                                “Start the Clock Facility City”
                        ]
                        "activeInd" : true,
                        "emailSuccessInd" : false,
```

```
                    "emailFailureInd" : false,
                    "ownerCrid" : "1234567",
                    "ownerCridCompanyName" : "Acme Corp",
                    "entity":
                    {
                            “entityId”: <id or null>
                            "crids" :
                            [
                                    {
                                            "crid":"1234567",
                                            "mids":
                                            [
                                                    {"mid":"111222333", "stids":["270", "271"]},
                                                    {"mid":"33322111", "stids":["274", "275"]}

                                            ],
                                            “allMidsInd”:false,
                                    }
                            ],

                            "routingCodes" :
                            [
                                    {"routingCode": "191700209", "stids":["050", "052"] }
                            ]

                    },
                    "mailObjectType" : "Container" ,
                    "handlingEventTypes" :[ "Actual", "Assumed Actual", "Assumed Logical",
"Logical" ],
                    "createdDate" : "2018-07-12 14:00:00",
                    "createdUser : "myUser",
                    “lastUpdateDate”: “2018-07-12 14:00:00",
                    “lastUpdateUser”:”myUser”
            }
    ]
}
```

Supported Response Codes

Code	Explanation
200	Ok
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error

4.2.2.2 Create Feed

POST /api/mt/v1/feed

Request Body Definition:

Element Name	Payload Field	Type	Required?	Description
Feed Name	feedName	String	Y	
Address Book IDs	addressBookServerIds	List<UUID>	N	Not required for online view
File Format	fileFormat	String	Y	Options are: “delimited”, “pkg”, “json”, “mailXML12A”, “mailXML12B”, “mailXML14A”, “mailXML16”
Delimiter	delimiter	String	N	Required for delimited format. Options are: “,”, “tab”, <other character>
Zipped Indicator	zippedInd	boolean	N	Required for delimited, pkg formats.
Scheduled Start Time	scheduledStartTime	String	Y	Format is yyyy-mm-dd HH:mm:ss
Scheduled Time Zone	scheduledStartTz	String	Y	Options are: “US/Puerto_Rico”, “US/Eastern”, “US/Central”, “US/Mountain”, “US/Pacific”
Frequency	frequency	Int	Y	
Frequency Units	frequencyUnits	String	Y	Options are: “MINUTES”, “HOURS”, “DAYS”
Fields	fields	List<String>	Y	Feed Data Fields (See Appendix)
Active Indicator	activeInd	boolean	Y	
Email Notification on Success Indicator	emailSuccessInd	boolean	N	Send email on success
Email Notification on Failure Indicator	emailFailureInd	boolean	N	Send email on failure
Notification Email	emails	List<String>	N	Required if emailSuccessInd or emailFailureInd is true
Owner Crid	ownerCrid	String	Y	

Element Name	Payload Field	Type	Required?	Description
Entity	entity	Entity	N	See Load Saved Entity for entity definition. If an entity ID is provided, the API will attempt to link the feed to that entity. Any discrepancies between the saved entity and the entity information provided will favor the saved entity.
Mail Object Type	mailObjectType	String	Y	Options are: “Container”, “Handling Unit”, “Bundle”, “Piece”
Handling Event Types	handlingEventTypes	List<String>	Y	Options are: “Actual”, “Assumed Actual”, “Assumed Logical”, “Logical”

Sample Request:

```
{
        "feedName" : "33322211 Container Scans",
        "addressBookServerIds" :
        [
                "230eea9f-1af5-412c-b446-8fc28e2e70f3",
                "950eea9f-1af5-412c-b446-8fc28e2e70b2"
        ],
        "fileFormat" : "delimited",
        "delimiter" : ",",
        "zippedInd" : true,
        "scheduledStartTime" : "2018-08-01 00:00:00",
        "scheduledStartTz" : "US/Eastern",
        "frequency" : "4",
        "frequencyUnits" : "HOURS",
        “fields”:
                [
                        “Start the Clock Date”,
                        “Start the Clock Facility City”
                ]
        "activeInd" : true,
        "ownerCrid" : "1234567",
        "ownerCridCompanyName" : "Acme Corp",
        "entity":
```

```
{
"entityId": null,
        "crids" :
                [
                        {
                                "crid":"1234567",
                                "mids":
                                [
                                        {"mid":"111222333", "stids":["270", "271"]},
                                        {"mid":"33322111", "stids":["274", "275"]}

                                ],
                                "allMidsInd":false
                        }
                ],

                "routingCodes" :
                [
                        {"routingCode": "191700209", "stids":["050", "052"] }
                ]
        },
        "mailObjectType" : "Container" ,
        "handlingEventTypes" :[ "Actual", "Assumed Actual", "Assumed Logical",
"Logical" ]
        }

}
```

Response Data Definition:

Element Name	Payload Field	Type	Required?	Description
Feed ID	feedId	UUID	N	The ID of the created feed. Will only exist if feed was created successfully.
Feed Name	feedName	String	Y	The name of the created feed
Status Messages	statusMessages	List<StatusMessage>	Y	See below for definition of Status Message Response

Status Message Definition:

Element Name	Payload Field	Type	Required?	Description
Status Message	statusMessage	String	Y	
Response Code	responseCode	Int	Y	Success/Error code
Request ID	requestId	UUID	Y	A request ID to use for tracking

Sample Response:

```
{
```

```
    "feedId": "050c4a3d-93f0-479b-b160-a3e8eac86c61",
    "feedName": "Test Feed",
    "statusMessages": [
      {
            "statusMessage": "Successfully created feed.",
            "responseCode": 200,
            "requestId": "6d5969d8-8750-43b1-b6d4-a107a952d2f4"
      }

    ]
}
```


Supported Response Codes

Code	Explanation
200	Success
400	Bad Request
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error
10020	Invalid Address Book ID
10021	User does not have access to this CRID
10022	Invalid feed option selected.

4.2.2.3 Update Feed

Endpoint URL:

POST /api/mt/v1/feed/<feedId>

Request Parameters:

Element Name	Payload Field	Type	Required?	Description
Feed ID	feedId	UUID	Y	Unique Id of feed to be updated

Request Body Definition:

Element Name	Payload Field	Type	Required?	Description
Feed Name	feedName	String	Y	
Address Book IDs	addressBookServerIds	List<UUID>	N	Not required for online view
File Format	fileFormat	String	Y	Options are:

Element Name	Payload Field	Type	Required?	Description
				"delimited", "pkg", "json", "mailXML12A", "mailXML12B", "mailXML14A", "mailXML16"
Delimiter	delimiter	String	N	Options are: ",", "tab", <other character>
Zipped Indicator	zippedInd	boolean	Y	
Scheduled Start Time	scheduledStartTime	String	Y	Format is yyyy-mm-dd HH:mm:ss
Scheduled Time Zone	scheduledStartTz	String	Y	Options are: "US/Puerto_Rico", "US/Eastern", "US/Central", "US/Mountain", "US/Pacific"
Frequency	frequency	Int	Y	
Frequency Units	frequencyUnits	String	Y	Options are: "MINUTES", "HOURS", "DAYS"
Fields	fields	List<String>	Y	Feed Data Fields (See Appendix)
Active Indicator	activeInd	boolean	Y	
Email Notification on Success Indicator	emailSuccessInd	boolean	N	Send email on success
Email Notification on Failure Indicator	emailFailureInd	boolean	N	Send email on failure
Notification Email	emails	List<String>	N	Required if emailSuccessInd or emailFailureInd is true
Entity	entity	Entity	N	See Load Saved Entity for entity definition. If an entity ID is present for the entry, the API will attempt to link the feed to that entity. Any discrepancies between the saved entity and the entity information provided will favor the saved entity.
Mail Object Type	mailObjectType	String	Y	Options are:

Element Name	Payload Field	Type	Required?	Description
				"Container", "Handling Unit", "Bundle", "Piece"
Handling Event Types	handlingEventTypes	List<String>	Y	Options are: "Actual", "Assumed Actual", "Assumed Logical", "Logical"

Sample Request:


```
{
        "feedName" : "33322211 Container Scans",
        "addressBookServerIds" :
        [
                "230eea9f-1af5-412c-b446-8fc28e2e70f3",
                "950eea9f-1af5-412c-b446-8fc28e2e70b2"
        ],
        "fileFormat" : "delimited",
        "delimiter" : ",",
        "zippedInd" : true,
        "scheduledStartTime" : "2018-08-01 00:00:00",
        "scheduledStartTz" : "US/Eastern",
        "frequency" : "4",
        "frequencyUnits" : "HOURS",
        "fields":
                [
                        "Start the Clock Date",
                        "Start the Clock Facility City"
                ]
        "activeInd" : true,
        "ownerCrid" : "1234567",
        "ownerCridCompanyName" : "Acme Corp",
        "entity":
{
"entityId": null,
        "crids" :
                [
                        {
                                "crid":"1234567",
                                "mids":
                                [
                                        {"mid":"111222333", "stids":["270", "271"]},
                                        {"mid":"33322111", "stids":["274", "275"]}
```

```
                                        ],
                                        "allMidsInd":false
                                }
                        ],

                        "routingCodes" :
                        [
                                {"routingCode": "191700209", "stids":["050", "052"] }
                        ]
                },
                "mailObjectType" : "Container" ,
                "handlingEventTypes" :[ "Actual", "Assumed Actual", "Assumed Logical",
"Logical" ]
        }

}
```

Response Data Definition:

Element Name	Payload Field	Type	Required?	Description
Feed ID	feedId	UUID	N	The ID of the created feed. Will only exist if feed was created successfully.
Feed Name	feedName	String	Y	The name of the created feed
Status Messages	statusMessages	List<StatusMessage>	Y	See below for definition of Status Message Response

Status Message Definition:

Element Name	Payload Field	Type	Required?	Description
Status Message	statusMessage	String	Y	
Response Code	responseCode	Int	Y	Success/Error code
Request ID	requestId	UUID	Y	A request ID to use for tracking

Sample Response:

```
{
      "feedId": "050c4a3d-93f0-479b-b160-a3e8eac86c61",
      "feedName": "Test Feed",
      "statusMessages": [
         {
               "statusMessage": "Successfully updated feed.",
               "responseCode": 200,
               "requestId": "6d5969d8-8750-43b1-b6d4-a107a952d2f4"
         }

      ]
}
```

Supported Response Codes

Code	Explanation
200	Success
400	Bad Request
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error
10020	Invalid Address Book ID
10021	User does not have access to this CRID
10022	Invalid feed option selected.
10023	User does not have access to this feed

4.2.3 Saved Entity Web Services

4.2.3.1 Load Saved Entity

Endpoint URL:

GET /api/mt/v1/savedEntity

Request Parameters: None

Response Data Definition:

Element Name	Payload Field	Type	Required?	Description
Entity ID	entityId	UUID	Y	Unique Id
Entity Name	entityName	String	Y	
Entity Description	entityDescription	String	Y	
Owner Crids	ownerCrids	List<String>	Y	Crids that own the entity
Crids	crids	List	Y	See Table below for crid list definition
Routing Codes	routingCodes	List	Y	See Table below for routing code definition
Feeds	feeds	List<UUID>	Y	List of feed IDs associated to entity
Public	publicInd	Boolean	Y	Entity public or private

CRID:

Element Name	Payload Field	Type	Required?	Description
Crid	crid	String	Y	
Mids	mids	List	Y	See Table below for Mid list definition
All Mids Indicator	allMidsInd	Boolean	Y	If true, indicates all Mids of CRID are selected.

MID:

Element Name	Payload Field	Type	Required?	Description
Mid	mid	String	Y	
Stids	stids	List<String>	Y	List of STIDs

Routing Code:

Element Name	Payload Field	Type	Required?	Description
Routing Code	routingCode	String	Y	
Stids	stids	List<String>	Y	List of STIDS

Sample Response:


```
{
        “message”: null,
          "data":{
        “savedEntities”: [
        {
      "createdDateTime": "2018-05-17 11:25:56.0",
      "createdUser": "TestUser",
      "lastUpdateDateTime": "2018-06-22 13:09:16.0",
      "lastUpdateUser": "TestUser",
      "entityName": "Test Entity",
      "entityDescription": "Test Entity",
      "ownerCrids": [
              "20480655"
      ],
      "crids": [
      {
      "crid": "20480607",
      "mids": [{
        "mid": "900068004",
        "stids": []
      }],
      “allMidsInd”:false
      },
      {
      "crid": "20490641",
      “allMidsInd”:true
      "mids": [
      {
```

```
            "mid": "900066000",
            "stids": []
          },
          {
            "mid": "900066001",
            "stids": []
          },
          {
            "mid": "900029356",
            "stids": [
              "565"
            ]
          }
        ]
      }
    ],
    "routingCodes": [
      {
        "routingCode": "10101010101",
        "stids": [
          "051",
          "052"
        ]
      },
      {
        "routingCode": "18008675309",
        "stids": [
          "050"
        ]
      },
      {
        "routingCode": "22222222222",
        "stids": []
      }
    ]
,
    "feeds": [
      "caf80e5e-0373-48e4-99da-185ab85542db"
    ],
    "publicInd": true,
    "entityId": "17b3d9da-e878-411e-b571-2122a8602e9e"
  }
]}
```


Supported Response Codes

Code	Explanation
200	Ok
400	Bad Request
403	Unauthorized User

404	Server could not be reached
500	Internal Server Error

4.2.3.2 Update Saved Entity

Endpoint URL:

POST /api/mt/v1/savedEntity/<entityId>

Request Parameters:

Element Name	Payload Field	Type	Required?	Description
Entity ID	entityId	UUID	Y	Unique Id

Request Body:

Element Name	Payload Field	Type	Required?	Description
Entity Name	entityName	String	Y	
Entity Description	entityDescription	String	Y	
Owner Crids	ownerCrids	List<String>		Owner crids for the saved entity
Crids	crids	List	Y	See Table below for crid list definition
Routing Codes	routingCodes	List	Y	See Table below for routing code definition
Feeds	feeds	List<UUID>	Y	List of feed IDs associated to entity

CRID:

Element Name	Payload Field	Type	Required?	Description
Crid	crid	String	N	On receiving an empty crid, the API will do a crid lookup for the mids provided
Mids	mids	List	Y	See Table below for Mid list definition
All Mids Indicator	allMidsInd	Boolean	N	Indicates all Mids of the CRID are selected.

MID:

Element Name	Payload Field	Type	Required?	Description
Mid	mid	String	Y	
Stids	stids	List<String>	Y	List of STIDs

Routing Code:

Element Name	Payload Field	Type	Required?	Description
Routing Code	routingCode	String	Y	
Stids	stids	List<String	Y	List of STIDS

Sample Request:

```
{
   "entityName": "Test Entity",
   "entityDescription": "Test Entity",
   "ownerCrids": [
     "20480655"
   ],
   "crids": [
     {
       "crid": "20482685",
       "mids": []
     }
   ],
   "routingCodes": [],
   "publicInd": true
}
```

Response Data Definition:

Element Name	Payload Field	Type	Required?	Description
Entity ID	entityId	UUID	Y	The Entity that was updated
Entity Name	entityName	String	Y	The name of the Entity that was updated.
Status Messages	statusMessages	List<StatusMessage>	Y	See below for definition of Status Message Response

Status Message Definition:

Element Name	Payload Field	Type	Required?	Description
Status Message	statusMessage	String	Y	
Response Code	responseCode	Int	Y	Success/Error code
Request ID	requestId	UUID	Y	A request ID to use for tracking

Sample Response:

```
{
      "entityId": "050c4a3d-93f0-479b-b160-a3e8eac86c61",
      "entityName": "Test Entity",
      "statusMessages": [
         {
              "statusMessage": "Successfully updated CRID 20482685",
```

```
            "responseCode": 200,
            "requestId": "6d5969d8-8750-43b1-b6d4-a107a952d2f4"
        }
        {
            "statusMessage": "Successfully updated CRID 20482688",
            "responseCode": 200,
            "requestId": "6d5969d8-8750-43b1-b6d4-a107a952d2f4"
        }


    ]
}
```


Supported Response Codes

Code	Explanation
200	Success
400	Bad Request
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error
10001	Failed to update saved Entity
10006	Requested Entity does not exist

4.2.3.3 Update CRID in Saved Entity

Endpoint URL:

POST /api/mt/v1/savedEntity/<entityId>/crid

Request Parameters:

Element Name	Payload Field	Type	Required?	Description
Entity ID	entityId	UUID	Y	Unique Id

Request Body:

Element Name	Payload Field	Type	Required?	Description
Crid	crid	String	Y	
Mids	mids	List	Y	See Table below for Mid list definition

MID:

Element Name	Payload Field	Type	Required?	Description
Mid	mid	String	Y	
Stids	stids	List<String>	Y	List of STIDs

Sample Request:

```
{
      "crid": “20482685”,
      "mids": [
        {
          "mid": "900028273",
          "stids": [
            "050"
          ]
        },
        {
          "mid": "910028277",
          "stids": []
        }
      ]

 }
```

Response Data Definition:

Element Name	Payload Field	Type	Required?	Description
Entity ID	entityId	UUID	Y	The Entity that was updated
Entity Name	entityName	String	Y	The name of the Entity that was updated.
Status Messages	statusMessages	List<StatusMessage>	Y	See below for definition of Status Message Response

Status Message Definition:

Element Name	Payload Field	Type	Required?	Description
Status Message	statusMessage	String	Y	
Response Code	responseCode	Int	Y	Success/Error code
Request ID	requestId	UUID	Y	A request ID to use for tracking

Sample Response:

```
{
      "entityId": "050c4a3d-93f0-479b-b160-a3e8eac86c61",
      "entityName": "Test Entity",
      "statusMessages": [
         {
```

```
            "statusMessage": "Successfully updated CRID 20482685",
            "responseCode": 200,
            "requestId": "6d5969d8-8750-43b1-b6d4-a107a952d2f4"
        }

    ]
}
```


Supported Response Codes

Code	Explanation
200	Success
400	Bad Request
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error
10002	Failed to update CRID
10004	Requesting user does not have access to this CRID
10006	Requested Entity does not exist
10007	Request CRID does not exist

4.2.3.4 Add/Update MID in Saved Entity

Endpoint URL:

POST /api/mt/v1/savedEntity/<entityId>/crid/<crid>

Request Parameters:

Element Name	Payload Field	Type	Required?	Description
Entity ID	entityId	UUID	Y	Unique Id
Crid	crid	String	Y	CRID which mids are being updated for

Request Body:

The request accepts a list of the following:

Element Name	Payload Field	Type	Required?	Description
Mid	mid	String	Y	
Stids	stids	List<String>	Y	List of STIDs

Sample Request:

```
{
        "mid": "900029356",
        "stids": [
          "052"
        ]
}
```

Response Data Definition:

Element Name	Payload Field	Type	Required?	Description
Entity ID	entityId	UUID	Y	The Entity that was updated
Entity Name	entityName	String	Y	The name of the Entity that was updated.
Status Messages	statusMessages	List<StatusMessage>	Y	See below for definition of Status Message Response

Status Message Definition:

Element Name	Payload Field	Type	Required?	Description
Status Message	statusMessage	String	Y	
Response Code	responseCode	Int	Y	Success/Error code
Request ID	requestId	UUID	Y	A request ID to use for tracking

Sample Response:

```
{
      "entityId": "050c4a3d-93f0-479b-b160-a3e8eac86c61",
      "entityName": "Test Entity",
      "statusMessages": [
         {
              "statusMessage": "Successfully updated MID 900029356",
              "responseCode": 200,
              "requestId": "6d5969d8-8750-43b1-b6d4-a107a952d2f4"
          }

      ]
}
```

Supported Response Codes

Code	Explanation
200	Success
400	Bad Request
403	Unauthorized User

Code	Explanation
404	Server could not be reached
500	Internal Server Error
10003	Failed to update MID
10004	Requesting user does not have access to this CRID
10005	Requesting user does not have access to this MID
10006	Requested Entity does not exist
10007	Request CRID does not exist
10008	Requested MID does not exist
10009	Requested STID does not exist

4.2.4 Feed File History Web Services

4.2.4.1 Export Feed File History

Endpoint URL:
GET /api/mt/v1/feed/{feedId}/fileHistory

Request Parameters:

Element Name	Payload Field	Type	Required?	Description
Feed ID	feedId	UUID	Y	The ID of the feed to find files for

Response Data Definition:

Element Name	Payload Field	Type	Required?	Description
File ID	fileId	UUID	Y	The unique file identifier
File Name	filename	String	Y	The name of the file
Record Count	recordCount	int	Y	The number of records in the file
Download Time	downloadTime	String	N	The date and time the file was downloaded. Format is "YYYY-MM-DD HH:mm:ss"
Recipient CRID	recipientCrid	String	Y	The CRID the file belongs to

Element Name	Payload Field	Type	Required?	Description
Scan Type	scanType	String	Y	The scan type for the file. Options are: “Container” “Tray” “Bundle” “Piece”
Target	target	Target	N	See below for Target definition. Only valid for send to address files.
Provision Date	provisionDate	String	Y	The date and time the file was provisioned. Format is “YYYY-MM-DD HH:mm:ss”
Created Date	createdDate	String	Y	The date and time the file was created. Format is “YYYY-MM-DD HH:mm:ss”
Last Downloaded User	lastDownloadUser	String	N	The user ID of the last user to download the file

Target:

Element Name	Payload Field	Type	Required?	Description
Address Book Id	addressBookId	UUID	Y	Unique ID
Host Description	hostDescription	String	Y	Target Description
Host Address	hostAddress	String	N	Host Address
Port	port	int	N	

Sample Response:


```
{
        “message”:null
        "data":{
        “files”:[
                {
                        "fileId": "06B8SEO5RH0WWYT4W6Y7”
                        "fileName": "Test File",
                        "recordCount": 23,
                        "downloadTime": null,
                        "recipientCrid":"123456",
                        "scanType":"Container",
                        "target":
                        {
                                "addressBookId":"230eea9f-1af5-412c-b446-8fc28e2e70f3",
                                "hostDescription":"Test Target Server",
                                "hostAddress":"192.168.1.1",
                                "port" : 22
```

```
                    },
                    "provisionDate": "2018-07-12 14:00:00"
                    “createdDate”: "2018-07-12 14:00:00"
                    “lastDownloadUser”:null
                },
                {
                    "fileId": "08SF0IIA6W5HHBJ8SGSN",
                    "fileName": "Test File",
                    "recordCount": 34,
                    "downloadTime": "2018-07-12 14:00:00",
                    "recipientCrid":"123456",
                    "scanType":"Piece",
                    "target": null,
                    "provisionDate": "2018-07-12 14:00:00"
                    “createdDate”: "2018-07-12 14:00:00"
                    “lastDownloadUser”:”someUser”

                }
        ]}
}
```


Supported Response Codes

Code	Explanation
200	Ok
400	Bad Request
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error

4.2.4.2 Resend File

Endpoint URL:

POST /api/mt/v1/feed/{feedId}/fileHistory/resend

Request Parameters:

Element Name	Payload Field	Type	Required?	Description
Feed ID	feedId	UUID	Y	The ID of the feed to resend files for

Request Body:

Element Name	Payload Field	Type	Required?	Description
Files	files	List<String>	Y	List of fileIds

Sample Request:

```
{
        “files”: [
                "06B8SEO5RH0WWYT4W6Y7",
                "08SF0IIA6W5HHBJ8SGSN"
                ]
}
```

Response Data Definition:

Element Name	Payload Field	Type	Required?	Description
File ID	fileId	UUID	Y	The file that was marked to resend
Status Messages	statusMessages	List<StatusMessage>	Y	See below for definition of Status Message Response

Status Message Definition:

Element Name	Payload Field	Type	Required?	Description
Status Message	statusMessage	String	Y	
Response Code	responseCode	Int	Y	Success/Error code
Request ID	requestId	UUID	Y	A request ID to use for tracking

Sample Response:

```
{
“result”:
[
        {
        "fileId": "06B8SEO5RH0WWYT4W6Y7",
        "statusMessages": [
                {
                        "statusMessage": "Successfully marked file for resend.",
                        "responseCode": 200,
                        "requestId": "6d5969d8-8750-43b1-b6d4-a107a952d2f4"
           }
        },
        {
        "fileId": "08SF0IIA6W5HHBJ8SGSN ",
        "statusMessages": [
                {
                        "statusMessage": "File status is already pending resend.",
                        "responseCode": 10010,
                        "requestId": "6d5969d8-8750-43b1-b6d4-a107a952d2f4"
           }
        },
```

```
    ]
}
```

Supported Response Codes

Code	Explanation
200	Success
400	Bad Request
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error
10010	File status already pending resend
10011	File not found
10012	Requesting user does not have access to this file

4.2.5 Address Book Web Services

4.2.5.1 Export Address Book Servers

Endpoint URL:

GET /api/mt/v1/addressBook/server

Request Parameters:
None

Response Data Definition:

Element Name	Payload Field	Type	Required?	Description
Address Book Server ID	addressBookServerId	UUID	Y	The unique server address book ID
Address Book Name	addressBookName	String	Y	The name of the server address book
Address Book Person ID	addressBookPersonId	UUID	N	The unique identifier for the related address book person

Element Name	Payload Field	Type	Required?	Description
Connection Protocol	connectionProtocol	String	Y	The connection protocol in use. Options are: “SFTP” “FTP” “HTTPS_MAIL_XML” “HTTPS_JSON”
CRIDs	crids	List<String>	Y	The list of CRIDs that own the server address book
Destination Host	destinationHost	String	Y	The destination host
Port	port	Int	N	The selected connection port
Port Approval Status	portApprovalStatus	String	N	Port approval status for nonstandard ports. Options are: “PENDING” “APPROVED” “REJECTED”
Target Directory	targetDirectory	String	N	Target directory on the destination host

Sample Response:


```
{
	“message”:null
	"data":
	{
	“addressBooks”:
	[
		{
			"addressBookServerId":"6d5969d8-8750-43b1-b6d4-a107a952d2f4",
			"addressBookName":"Test Server Address Book",
			"addressBookPersonId":"6d5969d8-8750-43b1-b6d4-a107a952d2f4",
			"connectionProtocol":"SFTP",
			"crids":
			[
				"1000231",
				"1034245",
				"1235563"
			],
			"destinationHost":"MyTestServer.com",
			"port":22,
			“portApprovalStatus”:”APPROVED”
			"targetDirectory":"/home/files"
		}
	]
	}
```

}

Supported Response Codes

Code	Explanation
200	Ok
400	Bad Request
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error

4.2.6 Return Ballot Receipt Web Services

4.2.6.1 Generate KeyCodes for IMb

Endpoint URL:

POST /api/mt/v1/returnBallotReceipt/keyCode

Request Parameters:
None

Request Body:

Element Name	Payload Field	Type	Required?	Description
IMb	imb	List<String>	Y	List of Intelligent Mail barcodes to generate key codes for

Response Body:

Element Name	Payload Field	Type	Required?	Description
IMb	imb	String	Y	The original IMb
Key Code	keyCode	String	Y	Key code that was generated for the IMb

Sample Request:

```
{
        “imb”: [
                "00746910000415000059802231554 59",
                "00746910000415000072804037462 48"
                ]
}
```

Sample Response:


```
{
        “message”:null
        "data":
        {
        “keyCodes”:
        [
                {
                        “imb”: "00746910000415000059802231554 59",
                        “keyCode”:”HR88R9”
                },
                {
                        “imb”: "00746910000415000072804037462 48",
                        “keyCode”:”9FRE48”
                }

        ]
        }
}
```


Supported Response Codes

Code	Explanation
200	Ok
400	Bad Request
403	Unauthorized User
404	Server could not be reached
500	Internal Server Error

5 Appendix

5.1 Selectable Data Fields for Feed Create/Update

5.1.1 Container

Fields
Appointment ID
Bundle Count
eDoc Container ID
eDoc Container ZIP
eDoc CSA Agreement ID
eDoc Customer Group ID
eDoc Job ID
eDoc Mailing Group ID
eDoc Parent Container ID
eDoc Sibling Container ID
eDoc Submitter CRID

Fields
eDoc User License Code
FAST Appointment Scheduled Date Time
FAST Appointment Unload End Time
FAST Appointment Unload Start Time
Handling Event Type
Handling Event Type Description
IMcb
IMcb MID
IMcb Serial Number
Mail Class Description
Mail Shape Description
Piece Count
Postage Statement Finalization Date Time
Postage Statement Finalization Facility Name
Recipient CRID of MID on Container
Recipient CRID of MID on Container Delegator
Recipient CRID of MID on Piece
Recipient CRID of MID on Piece Delegator
Recipient eDoc Submitter CRID
Recipient eDoc Submitter Delegator CRID
Recipient FAST Scheduler CRID
Recipient FAST Scheduler Delegator CRID
Recipient Mail Owner CRID
Recipient Mail Owner Delegator CRID
Recipient Mail Preparer CRID
Recipient Mail Preparer Delegator CRID
Scan Date Time
Scan Event Code
Scan Facility City
Scan Facility Name
Scan Facility State
Scan Facility ZIP
Scan Locale Key
Scan State
Scanner Type
Start the Clock Date
Start the Clock Facility Address
Start the Clock Facility City
Start the Clock Facility Locale Key
Start the Clock Facility Name
Start the Clock Facility State
Start the Clock Facility Zip
Tray Count

5.1.2 Handling Unit

Fields
Appointment ID
Bundle Count
eDoc Container ID
eDoc CSA Agreement ID
eDoc Customer Group ID
eDoc Job ID
eDoc Mailing Group ID
eDoc Parent Container ID
eDoc Parent Container IMcb
eDoc Sibling Container ID
eDoc Submitter CRID
eDoc User License Code
Handling Event Type
Handling Event Type Description
IMtb
IMtb CIN
IMtb Destination ZIP
IMtb MID
IMtb Processing Code
IMtb Serial Number
Mail Class Description
Mail Shape Description
Piece Count
Recipient CRID of MID on Piece
Recipient CRID of MID on Piece Delegator
Recipient CRID of MID on Tray
Recipient CRID of MID on Tray Delegator
Recipient eDoc Submitter CRID
Recipient eDoc Submitter Delegator CRID
Recipient Mail Owner CRID
Recipient Mail Owner Delegator CRID
Recipient Mail Preparer CRID
Recipient Mail Preparer Delegator CRID
Scan Date Time
Scan Event Code
Scan Facility City
Scan Facility Name
Scan Facility State
Scan Facility ZIP
Scan Locale Key
Scan State
Scanner Type
Start the Clock Date

Fields
Start the Clock Facility Address
Start the Clock Facility City
Start the Clock Facility Locale Key
Start the Clock Facility Name
Start the Clock Facility State
Start the Clock Facility Zip

5.1.3 Bundle

Fields
Device ID
eDoc Job ID
eDoc Mailing Group ID
eDoc Package ID
eDoc Submitter CRID
Handling Event Type
Handling Event Type Description
IMb
IMb MID
IMb Routing Code
IMb Serial Number
IMb STID
IMb Tracking Code
Machine Name
Mail Class Description
Mail Shape Description
Parent Container eDoc Container ID
Parent Tray eDoc Container ID
Routing Code (IMb Matching Portion)
Scan Date Time
Scan Event Code
Scan Facility City
Scan Facility Name
Scan Facility State
Scan Facility ZIP
Scan Locale Key
Scanner Type

5.1.4 Piece

Fields
Anticipated Delivery Date
eDoc Job ID
eDoc Mailing Group ID
eDoc Submitter CRID
Expected Delivery Date

Fields
Handling Event Type
Handling Event Type Description
ID Tag
IMb
IMb MID
IMb Routing Code
IMb Serial Number
IMb STID
IMb Tracking Code
LDE Delivery Method
LDE Delivery Mode
LDE Trigger Method
Machine ID
Machine Name
Mail Class Description
Mail Phase
Mail Shape Description
Operational Status
Parent Container eDoc Container ID
Parent Container eDoc IMcb
Parent Tray eDoc Container ID
Parent Tray eDoc IMtb
Piece ID
Predicted Delivery Date
Recipient CRID of MID on Piece
Recipient CRID of MID on Piece Delegator
Recipient Mail Owner CRID
Recipient Mail Owner Delegator CRID
Recipient Routing Code Authorized CRID
Routing Code (IMb Matching Portion)
Scan Date Time
Scan Event Code
Scan Facility City
Scan Facility Name
Scan Facility State
Scan Facility ZIP
Scan Locale Key
Scanner Type
Start the Clock Date
Start the Clock Facility Address
Start the Clock Facility City
Start the Clock Facility Locale Key
Start the Clock Facility Name
Start the Clock Facility State

Fields
Start the Clock Facility Zip

5.2 Advance Edoc CSV File Format

Element Name	Column Number	Type	Required?	Description
Submission Identifier	1	String	Y	Mailer-generated unique identifier for each file submission. Up to 35 characters and always unique by submitter CRID
Job Id	2	String	N	Must match with the final Mail.dat Submission. This is required for consolidation of mail.dat submission and advance edoc submission
Segment Id	3	String	N	Must match with the final Mail.dat Submission. This is required for consolidation of mail.dat submission and advance edoc submission
User License Code	4	String	N	Must match with the final Mail.dat Submission. This is required for consolidation of mail.dat submission and advance edoc submission
Submitter Crid	5	String	Y	6 numbers, must match a valid CRID.
Originator Job Id	6	String	N	Must match with the originator Mail.dat Submission. For Copal Jobs this is required.
Originator Segment Id	7	String	N	Must match with the originator Mail.dat Submission. For Copal Jobs this is required.
Originator User License Code	8	String	N	Must match with the originator Mail.dat Submission. For Copal Jobs this is required.
Originator Crid	9	String	N	6 numbers, must match a valid CRID.
Origination Date	10	Date	N	Format is “yyyyMMdd”
Origination Zip 5	11	String	N	Must be 5-digit zip
Expected Induction Date	12	Date	Y	The date mailer expects to submit mailing. Must be within 90 days from submission time of advance eDoc. Format is “yyyyMMdd”
Expected Induction ZIP5	13	String	Y	5 characters, there must be a USPS facility in that ZIP5.
Mail Class	14	String	Y	Must be a valid mail class (Se e Supported Mail Class Values for Advance eDoc)
Processing Category	15	String	Y	Must be a valid processing category (See Supported Processing Category Values for Advance eDoc)
Sort Level	16	String	Y	Must be a valid sort level (See Supported Sort Level Values for Advance eDoc)
Piece ID	17	String	Y	Mailer generated unique identifier for a piece. Up to 35 characters and unique by submitter CRID within past 90 days.
Delivery Point	18	String	N	Must be 5 or 9 or 11-digits

Element Name	Column Number	Type	Required?	Description
IM Piece Barcode	19	String	N	Must be 31-characters, all numbers
FAST Appointment ID	20	String	N	
Weight	21	Float	N	
Record Status	22	String	Y	A (Add) U (Update) D (Delete). If Piece ID is provided, changes will only be apply to that piece. Otherwise, changes will apply to the whole submission

5.3 Supported Mail Class Values for Advance eDoc

Value	Description
FCM	First-Class
PER	Periodicals
MKT	Marketing
PSVC	Package Services
PRI	Priority
PREX	Priority Express
RTG	Retail Ground

5.4 Supported Processing Category/Mail Shape Values for Advance eDoc

Value	Description
LTR	Letter/Card
FLT	Flat
PKG	Package

5.5 Supported Sort Level Values for Advance eDoc

Codes	Characteristic (Domestic)	(Eligible Types)	Codes	Characteristic	(Eligible Types)
A =	CR-Direct	(S, T, P)	AF =	Protected NDC	(P)
B =	Mixed CR in 5 Digit	(S, T, P)	AG =	Mixed NDC	(S, P)
C =	Mixed CR in 3 Digit	(S, T)	AH =	Origin MxADC	(S, T, P)
D =	CR - 5D Scheme	(S, T, P)	AI =	Protected ADC	(P)
E =	FSS Sort Plan	(S, T, P)	AJ =	Single Piece	(S, T, P)
F =	FSS Facility	(S, T, P)	AK =	MXDS – Mixed Surface CSA FCM Only	(P)
G =	5 Digit (Auto/Presort)	(S, T, P)	AL =	MXDA – Mixed Air CSA FCM Only	(P)
H =	5 Digit (Merged)	(S, T, P)	AM =	Working CSA FCM Only	(P)
I =	5 Digit (Presort Only)	(S, T, P)	AN =	Single Piece CSA FCM Only	(P)
J =	5 Digit (Barcode only)	(S, T, P)	AO =	Surface CSA FCM Only	(P)
K =	Metro Scheme	(P)	AP =	Air CSA FCM Only	(P)
M =	5D Scheme (Presort)	(S, T, P)	AQ =	Local CSA FCM Only	(P)
N =	5D Scheme (Auto, Presort)	(S, T, P)	AR =	Origin SCF	(P)
O =	Other	(S, T, P)	AS =	Origin Mixed ADC Surface	(P)
P =	5D Scheme (Barcode)	(S, T, P)	AT =	Mixed ADC Air	(P)
Q =	5D Scheme (Merged)	(S, T, P)			
R =	3 Digit (Auto, Presort)	(S, T)			
S =	3 Digit (Barcode)	(S, T)			
T =	3 Digit (Presort)	(S, T)			
U =	3 Digit (CR, Auto, Presort)	(S, T, P)			
V =	3 Digit Scheme	(T)			
X =	SCF	(S, P)			
Y =	Protected SCF	(P)			
Z =	ADC	(S, T, P)			
AA =	AADC	(T, P)			
AB =	Mixed ADC	(S, T, P)			
AC =	Mixed AADC	(T)			
AD =	ASF	(S, P)			
AE =	NDC	(S, P)			