



Structured UPAs Implementation Guide

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Introduction

ATPCO's Routehappy Rich Content enables you to effectively communicate targeted information, messaging, and visual content about airline products and services to your customers. To expand the types of content offered, ATPCO now provides **Structured UPAs**, which include standardized content that fits seamlessly into shopping displays. This allows sales channels to provide this information without major UI adjustments. Furthermore, this information can be displayed in a way that is filterable and sortable, enabling customers to easily compare flight attributes and make purchasing decisions based on their needs and preferences.

Structured UPA categories

ATPCO Structured UPAs currently cover six objective, conventional topics related to health and hygiene, with a seventh topic (COVID-19 Vaccine) in development. These topics are individual categories in the API. Each category has an associated icon that can be used when presenting this information. The use of these standardized icons is highly encouraged.

| Structured UPA Category | Description | Icon |
|-------------------------|---|---|
| Blocked Seats | Indicates whether an airline is blocking adjacent or middle seats, or if only some seats are blocked. |  |
| Capacity | Indicates whether an airline is limiting the capacity on flights to ensure social distancing. |  |
| Cleaning | Indicates whether an airline is using disinfectants to clean aircraft and the frequency of cleaning (if available). |  |
| Masks | Indicates whether an airline has a mask or face covering requirement and/or whether a medical-grade mask is required. |  |
| Temperature Check | Indicates whether there is a pre-flight temperature check requirement. |  |

| Structured UPA Category | Description | Icon |
|-------------------------|--|---|
| COVID Testing | Indicates whether the arrival country or territory requires a negative COVID-19 test to board the flight |  |
| COVID Vaccine | Indicates whether an airline requires proof of COVID vaccination |  |

Note: ATPCO has created Structured UPAs in a way that provides for future expansion. Contact your Channel Retailing Account Lead if you would like to request additional categories.

Getting started

If you are a current Routehappy Rich Content subscriber and do not yet have access to Structured UPAs, contact your Channel Retailing Account Lead to request access at no additional cost to you. Once you have obtained access, you will be able to receive content for over 300 airlines via the Routehappy Rich Content API.

Accessing Structured UPAs

Structured UPAs, like other UPAs, are accessed via the “legs_searches” endpoint. Structured UPA content can be accessed by requesting all UPA content for a given airline or by requesting only the Structured UPA categories (blocked seats, capacity, cleaning, masks, temperature check, and COVID testing).

An example request for accessing content for all UPA categories can be found on <https://developer.atpco.net/>.

Example request header

The request header for Structured UPAs contains the information for authentication, API version, and language specification. It will also specify the host name for the application server, the endpoint name, and the resources that represent the specific data sets to be returned by the request.

```
curl \
"<URL:HOST/ENDPOINT?include=RESOURCES>" \
-X POST \
-H "Auth: <YOUR_API_KEY>" \
-H "Content-Type: application/vnd.routehappy+json" \
-H "Accept: application/vnd.routehappy+json" \
-H "Accept-language: <en>" \
```

curl is the programming language used.

The **URL** indicates the host server, the name of the endpoint and the resources requested.

Use the **POST** method as part of the header.

Auth is your API key. If you do not have an API key, contact your ATPCO Sales Channel Retailing manager.

Content-Type and **Accept** indicate the current version of the API.

Accept-language is the two-character language code. In this case, **en** represents English.

Constructing the request URL

The URL:HOST/ENDPOINT?include=RESOURCES parameter noted above is composed of three portions.

HOST

ATPCO has three hosts that may be used. Use the host that provides the least amount of latency.

| Host | Location |
|----------------------------------|--------------|
| us-east-1.hub-api.routehappy.com | Virginia, US |
| eu-west-1.hub-api.routehappy.com | Ireland, EU |
| hub-api-jp.atpco.net | Tokyo, JP |

ENDPOINT

The Structured UPA endpoint name is "legs_searches".

RESOURCES

To return all Structured UPA information, include both of the following resources in your request URL.

| Resource | Purpose |
|---|---|
| legs.leg_fares.fare | Returns all branded fare names included in the requested cabin. |
| legs.leg_fares.leg_fare_segments.upas.photo_attachments.photo | Returns Structured UPAs associated with requested flight and cabin. |

Example request URL

The following URL uses the east host and includes both resources.

Host
Endpoint

}
}

https://us-east-1.hub-api.routehappy.com/legs_searches?include=legs.leg_fares.fare,legs.leg_fares.leg_fare_segments.upas.photo_attachments.photo

}
}

Resources

Example request

An example request for accessing *only* Structured UPA content is shown below.

```
{
  "data":{
    "type":"legs_search",
    "attributes":{"
      "fare_source": "1S",
      "categories": ["cleaning", "masks",
"temperature-check", "blocked-seats",
"capacity", "covid-testing", "vaccine"],
      "legs":[
        {
          "segments": [
            {
              "dep": "MAD",
              "arr": "DUB",
              "carrier": "FR",
              "flt_no": "7257",
              "dep_date": "2020-10-01",
              "cabin_id": 1
            }
          ]
        }
      ]
    }
  }
}
```

The **legs_search** endpoint includes the full departure or return trip. It can be composed of a single segment or multiple segments.

The **fare_source** attribute identifies the IATA code for the fare source or GDS.

The **categories** attribute identifies the categories from which you will obtain the Structured UPA information: **cleaning, masks, temperature-check, blocked-seats, capacity, covid-testing, and vaccine.**

The **segments** key includes the departure and arrival airport codes, the IATA code for the carrier, the flight number, the departure date, and cabin ID. Cabin IDs are as follows: 1=ECON, 2=PREM ECON, 3=BIZ, 4=FIRST.

Example responses

Each category that was requested returns a headline, description, links to large and small versions of the icon, a call-to-action link, and a call-to-action URL that links to additional information.

Note: Besides the icons, no images or other media will be returned for this request. This is done intentionally to emphasize the critical, structured information that is most important to customers.

Cleaning

```
{
  "type": "upa",
  "id": "229571",
  "attributes": {
    "headline": "Enhanced aircraft cleaning nightly",
    "description": "This flight features an aircraft that will be thoroughly cleaned using
disinfectants on a nightly basis",
    "small_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/94bdd69b-e44d-43bc-ae2d-
16f20e949304/small/cleaning.png?channel_id=qv35s4cr",
    "large_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/94bdd69b-e44d-43bc-ae2d-
16f20e949304/large/cleaning.png?channel_id=qv35s4cr",
    "cta_text": "More",
    "cta_url": "https://www.ryanair.com/us/en/useful-info/healthy-
flying?onsid=rycom_PT_us_HealthyFlying_hero1_noseg_noab_nodev_nodl_nodlp.html ",
    "categories": [
      "cleaning"
    ],
    "att_descr": "enhanced nightly",
    "fees": []
  },
  "relationships": {
    "photo_attachments": {
      "data": []
    }
  }
}
```

Each category will also include an Attribute Description (“**att_descr**”) field. This field provides the standardized, structured attribute for the category. In this case, the attribute is **enhanced nightly**, but there are other attributes that may appear here. These attributes are limited to a few options, which ensures this information can be used for filtering and sorting. Furthermore, these attributes provide standardized information in the **headline** and **description** fields, which ensures consistent messaging for all flights. The attributes for cleaning, along with their standard headlines and descriptions, are shown below.

| Structured UPA Category | Attribute Description (att_descr) | Headline | Description |
|-------------------------|-----------------------------------|---|---|
| cleaning | standard | Standard aircraft cleaning | This aircraft is cleaned using standard techniques |
| | enhanced | Enhanced aircraft cleaning | This flight features an aircraft that will be thoroughly cleaned using disinfectants |
| | enhanced nightly | Enhanced aircraft cleaning nightly | This flight features an aircraft that will be thoroughly cleaned using disinfectants on a nightly basis |
| | enhanced every flight | Enhanced aircraft cleaning every flight | This flight features an aircraft that will be thoroughly cleaned using disinfectants for every flight |

For your reference, an [Attribute Description Reference Table](#), which lists all Structured UPA category information, has been provided at the end of this document.

Masks

```
{
  "type": "upa",
  "id": "229568",
  "attributes": {
    "headline": "Face covering required",
    "description": "All passengers are required to wear a face covering throughout their journey",
    "small_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/3dd6b11d-f48c-411a-834e-634bcfd81a02/small/masks.png?channel_id=qv35s4cr",
    "large_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/3dd6b11d-f48c-411a-834e-634bcfd81a02/large/masks.png?channel_id=qv35s4cr",
    "cta_text": "More",
    "cta_url": "https://www.ryanair.com/us/en/useful-info/healthy-flying?onsid=rycom_PT_us_HealthyFlying_hero1_noseg_noab_nodev_nodl_nodlp.html ",
    "categories": [
      "masks"
    ],
    "att_descr": "yes",
    "fees": []
  },
  "relationships": {
    "photo_attachments": {
      "data": []
    }
  }
},
```

In the case of masks, the “**att_descr**” field will contain either **yes**, **no**, or **medical**.

| Structured UPA Category | Attribute Description (att_descr) | Headline | Description |
|-------------------------|-----------------------------------|----------------------------|--|
| masks | no | Face covering not required | Passengers are not required to wear a face covering throughout their journey |
| | yes | Face covering required | All passengers are required to wear a face covering throughout their journey |
| | medical | Medical mask required | All passenger are required to wear a medical mask throughout their journey |

Temperature Check

```
{
  "type": "upa",
  "id": "229569",
  "attributes": {
    "headline": "No pre-flight temperature check",
    "description": "A temperature check is not required before boarding",
    "small_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/d29c15e8-dc7b-4970-88df-4421af31b14c/small/temperature-check.png?channel_id=qv35s4cr",
    "large_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/d29c15e8-dc7b-4970-88df-4421af31b14c/large/temperature-check.png?channel_id=qv35s4cr",
    "cta_text": "More",
    "cta_url": "https://www.ryanair.com/us/en/useful-info/healthy-flying?onsid=rycom_PT_us_HealthyFlying_hero1_noseg_noab_nodev_nodl_nodlp.html ",
    "categories": [
      "temperature-check"
    ],
    "att_descr": "yes",
    "fees": []
  },
  "relationships": {
    "photo_attachments": {
      "data": []
    }
  }
},
```

The temperature check “**att_descr**” field will only contain either **yes** or **no**.

| Structured UPA Category | Attribute Description (att_descr) | Headline | Description |
|-------------------------|-----------------------------------|---------------------------------------|--|
| temperature-check | no | No pre-flight temperature check | A temperature check is not required before boarding |
| | yes | Pre-flight temperature check required | A temperature check is required for all passengers before boarding |

Blocked Seats

```
{
  "type": "upa",
  "id": "229570",
  "attributes": {
    "headline": "No blocked adjacent seats",
    "description": "Adjacent seats are not blocked on this flight",
    "small_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/9bbad481-0ce1-4e9e-9e82-44224f5a7f96/small/blocked-seats.png?channel_id=qv35s4cr",
    "large_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/9bbad481-0ce1-4e9e-9e82-44224f5a7f96/large/blocked-seats.png?channel_id=qv35s4cr",
    "cta_text": "More",
    "cta_url": "https://www.ryanair.com/us/en/useful-info/healthy-flying?onsid=rycom_PT_us_HealthyFlying_hero1_noseg_noab_nodev_nodl_nodlp.html ",
    "categories": [
      "blocked-seats"
    ],
    "att_descr": "no",
    "fees": []
  },
  "relationships": {
    "photo_attachments": {
      "data": []
    }
  }
},
```

The blocked seats “att_descr” field will contain either **yes**, **no**, or **some**.

| Structured UPA Category | Attribute Description (att_descr) | Headline | Description |
|-------------------------|-----------------------------------|---------------------------|---|
| blocked-seats | no | No blocked adjacent seats | Adjacent seats are not blocked on this flight |
| | yes | Blocked adjacent seats | Adjacent seats are blocked on this flight, except for travelers in the same group |
| | some | Some seats blocked | Some seats are blocked on this flight |

Capacity

```
{
  "type": "upa",
  "id": "229572",
  "attributes": {
    "headline": "Standard passenger capacity",
    "description": "Ticket sales are not limited for this flight",
    "small_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/0180d779-f94a-475b-affe-008560e2240c/small/capacity.png?channel_id=qv35s4cr",
    "large_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/0180d779-f94a-475b-affe-008560e2240c/large/capacity.png?channel_id=qv35s4cr",
    "cta_text": "More",
    "cta_url": "https://www.ryanair.com/us/en/useful-info/healthy-flying?onsid=rycom_PT_us_HealthyFlying_hero1_noseg_noab_nodev_nodl_nodlp.html ",
    "categories": [
      "capacity"
    ],
    "att_descr": "no",
    "fees": []
  },
  "relationships": {
    "photo_attachments": {
      "data": []
    }
  }
}
```

The capacity “**att_descr**” field will contain either **yes** or **no**.

| Structured UPA Category | Attribute Description (att_descr) | Headline | Description |
|-------------------------|-----------------------------------|-----------------------------|---|
| capacity | no | Standard passenger capacity | Ticket sales are not limited for this flight |
| | yes | Reduced passenger capacity | To promote social distancing, this flight limits the number of tickets sold |

COVID Testing

```
{
  "type": "upa",
  "id": "232964",
  "attributes": {
    "headline": "Negative multi-stage tests required",
    "description": "This airline requires multiple negative COVID-19 tests to board the flight, including a negative PCR test and a rapid test at the airport",
    "small_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/7d6cf85f-2dd8-4d0c-8815-eee630f8b1f7/small/covid-testing.png?channel_id=1f846g7p",
    "large_icon_url": "https://d13cihc9138cdj.cloudfront.net/icons/7d6cf85f-2dd8-4d0c-8815-eee630f8b1f7/large/covid-testing.png?channel_id=1f846g7p",
    "cta_text": "More",
    "cta_url": "https://www.delta.com/us/en/travel-update-center/covid-tested-flights/netherlands-covid-tested-flights",
    "categories": [
      "covid-testing"
    ],
    "att_descr": "multi-stage PCR and rapid",
    "fees": []
  },
  "relationships": {
    "photo_attachments": {
      "data": []
    }
  }
}
```

The COVID testing “att_descr” field will contain either **required**, **test or vaccine required**, **multi-stage PCR and rapid**, **not required**, or **no data**.

| Structured UPA Category | Attribute Description (att_descr) | Headline | Description |
|-------------------------|-----------------------------------|-------------------------------------|--|
| covid-testing | required | Negative test required | A negative COVID-19 test is required for this flight. Check with the airline for required test type and when to get tested before departure |
| | test or vaccine required | Negative test or vaccine required | A negative COVID-19 test or proof of vaccination is required for this flight. Check with the airline for info on restrictions and exemptions |
| | multi-stage PCR and rapid | Negative multi-stage tests required | This airline requires multiple negative COVID-19 tests to board the flight, including a negative PCR test and a rapid test at the airport |
| | not required | No COVID-19 test required | A negative COVID-19 test is not required for this flight; check with the airline for possible destination requirements or other restrictions |
| | no data | No data | No data |

COVID Vaccine

More information about the COVID vaccine request/response structure and a list of possible COVID vaccine responses will be provided in the near future.

Choosing what to display

While channels may include the Structured UPA icons, headlines, descriptions, and call-to-action (CTA) information, it is not necessary to include all these items. For example, if the icons will not fit in your flight results screen, you have the option to present only key textual information. This may include the headline, description, CTA text, and CTA URL.

In the example shown below, the icons, headlines, and descriptions are displayed. Notice also that the Structured UPA content appears at the top of the offering, separate from the full-size visual Premium UPA information, which is presented at the bottom.

The screenshot displays a flight booking interface for Qantas Airways QF492. The flight details section shows a departure from MEL (Melbourne) at 7:45 PM and arrival at SYD (Sydney) at 9:10 PM, with a duration of 1h 25m. The fare section shows four options: Red Edeal (\$153.60), Economy Flex (\$384.60), Business (\$672.60*), and Flexible Business (\$831.60*). The fare details section includes information about checked bags, carry-on items, seat selection, and airport services. Two callout boxes are present: a purple one labeled 'Structured UPAs' pointing to the health and hygiene measures section, and a blue one labeled 'Premium UPAs' pointing to the 'More features of this flight' section.

Figure 1: Zeno display by Serko showing both Structured and Premium UPAs

Note: Structured UPAs can be used in multiple parts of the booking flow, from search results to pre-travel reminders.

Updates and caching

Currently, the content for Structured UPAs is manually sourced by ATPCO, who tracks and updates this content daily using airline websites and industry news as resources. Please abide by caching restrictions communicated in your Routehappy Rich Content contract. Note that, regardless of contract, caching should not exceed 24 hours.

Additionally, because Structured UPAs may be targeted by cabin, book-by dates, origin and destination, subfleet, or other parameters, we strongly recommend against caching the data at the airline level. The optimal solution is implementing active API calls.

Attribute Description Reference Table

| Structured UPA Category | Attribute Description (att_descr) | Headline | Description |
|-------------------------|-----------------------------------|---|--|
| blocked-seats | no | No blocked adjacent seats | Adjacent seats are not blocked on this flight |
| | yes | Blocked adjacent seats | Adjacent seats are blocked on this flight, except for travelers in the same group |
| | some | Some seats blocked | Some seats are blocked on this flight |
| capacity | no | Standard passenger capacity | Ticket sales are not limited for this flight |
| | yes | Reduced passenger capacity | To promote social distancing, this flight limits the number of tickets sold |
| cleaning | standard | Standard aircraft cleaning | This aircraft is cleaned using standrd techniques |
| | enhanced | Enhanced aircraft cleaning | This flight features an aircraft that will be thoroughly cleaned using disinfectants |
| | enhanced nightly | Enhanced aircraft cleaning nightly | This flight features an aircraft that will be thoroughly clenred using disinfetants on a nightly basis |
| | enhanced every flight | Enhanced aircraft cleaning every flight | This flight features an aircraft that will be thoroughly cleaned using disinfectants for every flight |
| masks | no | Face covering not required | Passengers are not required to wear a face covering throughout their journey |
| | yes | Face covering required | All passengers are required to wear a face covering throughout their journey |
| | medical | Medical mask required | All passenger are required to wear a medical mask throughout their journey |
| temperature-check | no | No pre-flight temerature check | A temperature chek is not required before boarding |
| | yes | Pre-flight temperature check required | A temperature check is required for all passengers before boarding |

| Structured UPA Category | Attribute Description (att_descr) | Headline | Description |
|-------------------------|-----------------------------------|-------------------------------------|--|
| covid-testing | required | Negative test required | A negative COVID-19 test is required for this flight. Check with the airline for required test type and when to get tested before departure |
| | test or vaccine required | Negative test or vaccine required | A negative COVID-19 test or proof of vaccination is required for this flight. Check with the airline for info on restrictions and exemptions |
| | multi-stage PCR and rapid | Negative multi-stage tests required | This airline requires multiple negative COVID-19 tests to board the flight, including a negative PCR test and a rapid test at the airport |
| | not required | No COVID-19 test required | A negative COVID-19 test is not required for this flight; check with the airline for possible destination requirements or other restrictions |
| | no data | No data | No data |
| vaccine | TBD | TBD | TBD |