

TDH – Expressions of Public Interest (Food) – Architecture

CONTRATTO ESECUTIVO PER L'AFFIDAMENTO DI "TOURISM DIGITAL HUB - TDH" MEDIANTE ORDINATIVO DI FORNITURA NELL'AMBITO DELL'ACCORDO QUADRO PER I SERVIZI APPLICATIVI PER LE PUBBLICHE AMMINISTRAZIONI STIPULATO DA CONSIP - ID 2212 – LOTTO 1

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# Purpose of the document

The purpose of the document is the sharing of architectural information about the implementation of the Interconnection APIs between the TDH and Catering operators who want to enroll on it. In this regard, the following interconnection APIs should be considered:

* *Put Destination*
* *Delete Destination*
* *Put Menu*
* *Delete Menu*
* *Put ContentOfInterest*
* *Delete ContentOfInterest*

By means of APIs just mentioned then, Catering operators enrolled on Tourism Digital Hub (TDH) will be able to export information about their business and/or delete it (Put/Delete Destination) as well as export their menu offerings and/or delete them (Put/Delete Menu); finally, it will be able to export information about a content of interest linked to a certain destination and/or delete it (Put/Delete ContentofInterest).

# Acronyms and definitions

| Acronym | Description |
| --- | --- |
| AEM | Adobe Experience Manager |
| API | Application Program Interface |
| REST | REpresentational State Transfer |
| SOAP | Simple Object Access Protocol |
| TDH | Tourism Digital Hub |

Table 1 – Acronyms and definitions

# Put Destination interface

This web API will allow Users to interface with TDH022, by communicating destinations; in particular, it will be possible to view business operators in the Catering sector.

The specifications of this API are given:

* *Source:* Third Parties (Third Parties displaying content on the TDH)
* *Target:* AEM
* *Update type:* Synchronous (real-time content update)
* *Trigger:* On call
* *Typology:* Create (new data stream creation) and Update (existing flow editing)
* Integration mode: REST and SOAP
* *Methodology:* Put

## Put Destination – Swagger

The swagger and its fields (with description) are given below in order to connect via API.

### *Put Destination – Request*

Parameters:

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| reqTimestamp***(header)*** | **string** | Timing at which the call was made. e.g."1640019167" |
| source ***(header)*** | **string** | Source system. This field is unique and should be agreed with the TDH022, e.g. "RegionePuglia". The length of the string is 50 |
| e2eKey ***(header)*** | **string** | Unique key of the entire transaction. The length of the string is 50, e.g. "1232432eeer23" |
| putDestinationRequest (\*)[[1]](#footnote-2) ***(body)*** | **object** | Sample Description |

Table 2 - Put Destination Request structure

Body:

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| Destination | **object** | putDestination service root |
| Destination.identifier | **string** | Unique key of size 50 of the destination identification sender system |
| Destination.destinationName | **string** | String of size 200. Indicates the name of the destination |
| Destination.shortDescription | **string** | Short description of size 200 |
| Destination.longDescription | **string** | Long description of size 5000 |
| Destination.language | **string[]** | String of size 2. Represents the code of the language in which the record is written according to ISO639-1 |
| Destination.owner | **Sting** | String of size 200 |
| Destination.address | **object** | Structure containing address information |
| Destination.address.zipCode | **string** | String of size 50. This is the postcode of the destination |
| Destination.address.country | **string** | String of size 50.This is the State in which the destination is located |
| Destination.address.streetName | **string** | String of size 50. Indicates the street name of where the destination is located |
| Destination.address.streetToponym | **string** | String of size 50.Refer to the list of INAIL toponyms at the following link https://www.inail.it/cs/internet/docs/ucm\_085810.pdf?section=attivita. |
| Destination.address.province | **string** | String of dimension 50. This is the province in which the destination is located |
| Destination.address.city | **string** | String of size 50. This is the city in which the destination is located |
| Destination.address.streetNumber | **string** | String of size 50. House number identifying the external access, i.e. that which leads from the circulation area to the simple geographical units (dwellings, offices, etc.) |
| Destination.address.district | **string** | String of size 50. Indicates the neighbourhood where the destination is located |
| Destination.address.fullAddress | **string** | String of size 255. This is the full address at which the destination is normalised by Google. |
| Destination.address.region | **string** | String of size 50. This is the region in which the destination is located |
| Destination.addressArea | **string** | Enum geographical designation: [ APAC, LATAM, EMEA, MEMEA, IMEA ]. |
| Destination.geoDistribution | **string** | Represents the geographical area within the country where the Enum destination is located: [northeast, islands, south, northwest, centre, north ]. |
| Destination.longitude | **string** | Longitude of destination preferably expressed in the WGS84 coordinate system |
| Destination.latitude | **string** | Latitude of destination preferably expressed in the WGS84 coordinate system |
| Destination.altitude | **string** | Altitude of destination preferably expressed in the WGS84 coordinate system |
| Destination.geometryType | **string** | Enum: [ POLYGON, POINT, LINE, BOX ]. |
| Destination.coordinateSystemref | **string** | Represents the reference system for the representation of coordinates |
| Destination.email | **string** | Destination e-mail address |
| Destination.phoneNumber | **string** | Destination telephone number |
| Destination.website | **string** | Destination website |
| Destination.openingHours | **string[]** | Opening Hourse |
| Destination.destinationStatus | **string** | Open or Closed |
| Destination.destinationCategory | **string** | Category |
| Destination.theme | **string** | Architectural, Health… |
| Destination.services | **object** | Structure containing services offered by the destination |
| Destination.services.otherServices | **string** | Free text for any other services |
| Destination.services.listOfServices | **string[]** | List of services available according to a predefined list (e.g. toilets, audioguide). stringEnum: [ disability-physical, lift, audio-guides, baby-area, bus, luggage-storage, disability-cognitive, disability-hearing, disability-visual, cloakroom, info, bike-rental, parking, pet, refreshments, services-hygiene, shop, guided-visits, wi-fi, non-smoking rooms, family-room-availability, reception-24-hours-a-day, pets-allowed, gym, airport-shuttle, room-service, rooms-facilities-for-disabled-guests, restaurant, spa, swimming-pool, electric-vehicle-charging-station, children's menus, German-speaking languages, French-speaking languages, Spanish-speaking languages, bathroom-for-disabled-guests, smoking area ]] |
| Destination.linkedDestination | **string[]** | Destinations linked to the individual destination |
| Destination.Paragraph | **object** | Structure containing paragraph information |
| Destination.Paragraph.identifier | **string** | Unique key of size 50 identifying the paragraph |
| Destination.Paragraph.paragraphText | **string** | Article text in UTF-8 |
| Destination.Paragraph.paragraphTitle | **string[]** | String of length 200. It is the paragraph title of the article |
| Destination.Paragraph.Media | **object[]** | Structure containing the media in the paragraph |
| Destination.Paragraph.Media.MediaURL | **string** | Audio/Video Url |
| Destination.Paragraph.Media.isExternal | **string** | Indicates whether it is an audio/video from external sources. Example YouTube |
| Destination.Paragraph.Media.MediaDescription | **string** | Audio/Video Description |
| Destination.Paragraph.Media.MediaCredit | **string** | Audio/Video Credits |
| Destination.Paragraph.Media.MediaLicense | **string** | License code for audio/video use |
| Destination.Paragraph.Media.MediaLicenseURL | **string** | Audio/Video License Code URL |
| Destination.Paragraph.Media.MediaType | **string** | Indicates if it is an Audio or Video |
| Destination.Paragraph.Media.MediaEndDate | **date** | Media expiry date |
| Destination.Paragraph.Media.MediaTitle | **string** | Media Title |
| Destination.Paragraph.paragraphOrder | **number** | Position of the paragraph within the Article |
| Destination.Paragraph.Authors | **object[]** | Structure containing the information of the author who wrote the paragraph |
| Destination.Paragraph.Authors.authorName | **string** | String of length 50. Represents the author of the article |
| Destination.Paragraph.Authors.authorDescription | **string** | String of length 1000. Author's description |
| Destination.Paragraph.Authors.AuthorImage | **object** | Structure containing author-related images |
| Destination.Paragraph.Authors.AuthorImage.ImageURL | **string** | Indicates image url |
| Destination.Paragraph.Authors.AuthorImage.ImageDescription | **string** | Indicates image description |
| Destination.Paragraph.Authors.AuthorImage.ImageCredit | **string** | Indicates the author who owns the image |
| Destination.Paragraph.Authors.AuthorImage.ImageLicense | **string** | License code for image use |
| Destination.Paragraph.Authors.AuthorImage.ImageLicenseURL | **string** | Image license URL |
| Destination.Paragraph.Authors.AuthorImage.ImageWidth | **number** | Image width |
| Destination.Paragraph.Authors.AuthorImage.ImageHeight | **number** | Image height |
| Destination.Paragraph.Authors.AuthorImage.ImageEndDate | **date** | Image expiry date |
| Destination.Paragraph.Authors.AuthorImage.ImageTitle | **string** | Image Title |
| Destination.Paragraph.destinationID | **string[]** | Destination Reference |
| Destination.Paragraph.Image | **object** | Structure containing article-related images |
| Destination.Paragraph.Image.ImageURL | **string** | Indicates image url |
| Destination.Paragraph.Image.ImageDescription | **string** | Indicates image description |
| Destination.Paragraph.Image.ImageCredit | **string** | Indicates the author who owns the image |
| Destination.Paragraph.Image.ImageLicense | **string** | License code for image use |
| Destination.Paragraph.Image.ImageLicenseURL | **string** | Image license URL |
| Destination.Paragraph.Image.ImageWidth | **number** | Image width |
| Destination.Paragraph.Image.ImageHeight | **number** | Image height |
| Destination.Paragraph.Image.ImageEndDate | **date** | Image expiry date |
| Destination.Paragraph.Image.ImageTitle | **string** | Image Title |
| Destination.Paragraph.HyperLinks | **object[]** | Paragraph hyperlink structure |
| Destination.Paragraph.HyperLinks.identifier | **string** | Paragraph hyperlink identifier |
| Destination.Paragraph.HyperLinks.name | **string** | Hyperlink name |
| Destination.Paragraph.HyperLinks.description | **string** | Hyperlink description |
| Destination.Paragraph.HyperLinks.externalUrl | **string** | Hyperlink URL |
| Destination.Paragraph.paragraphSubtitle | **string[]** | Paragraph subtitles |
| Destination.Image | **object** | Structure containing article-related images |
| Destination.Image.ImageURL | **string** | Indicates image url |
| Destination.Image.ImageDescription | **string** | Indicates image description |
| Destination.Image.ImageCredit | **string** | Indicates the author who owns the image |
| Destination.Image.ImageLicense | **string** | Image licence code |
| Destination.Image.ImageLicenseURL | **string** | Image licence URL |
| Destination.Image.ImageWidth | **number** | Image width |
| Destination.Image.ImageHeight | **number** | Image height |
| Destination.Image.ImageEndDate | **date** | Image expiry date |
| Destination.Image.ImageTitle | **string** | Image Title |
| Destination.Media | **object[]** | Structure containing the media in the paragraph |
| Destination.Media.MediaURL | **string** | Audio/video url |
| Destination.Media.isExternal | **string** | Indicates whether it is an audio/video from external sources. Example YouTube |
| Destination.Media.MediaDescription | **string** | Audio/video description |
| Destination.Media.MediaCredit | **string** | Audio/video credits |
| Destination.Media.MediaLicense | **string** | License code for audio/video use |
| Destination.Media.MediaLicenseURL | **string** | Audio/video license URL |
| Destination.Media.MediaType | **string** | Indicates if it is an Audio or Video |
| Destination.Media.MediaEndDate | **date** | Media expiry date |
| Destination.Media.MediaTitle | **string** | Media Title |
| Destination.template | **string** | Template to be filled in for the Enum call type:[ POI, Destination, City, Region ]. |
| Destination.feature | **object[]** | Structure to handle future developments |
| Destination.feature.id | **string** | Subject key |
| Destination.feature.value | **string** | Value object |

Table 3 - Put Destination Body structure

### *Put Destination – Response*

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Field** | **Type** | **Description** |
| 200 | **codiceEsito** | **integer** | **Outcome of request processing. 1=> OK , 0 => KO . E.g. "1"** |
| **id** | **string** | **String of size 50. It indicates the unique key of the TDH022 system that identifies the resource. E.g. "21396293821"** |
| **message** | **string** | **String of size 50. IT represents the outcome of request processing. E.g. “Bad Request"** |
| 400 | **codiceEsito** | **string** | **Outcome code** |
| 500 | **codiceEsito** | **string** | **Outcome code** |

Table 4 - Put Destination Response structure

# Delete Destination interface

This web API will allow user to interface with TDH022 by deleting a previously selected destination; specifically, it will be possible to delete catering destinations previously selected by the user.

The specifications of this API are given:

* *Source:* Third Parties (Third Parties displaying content on the TDH)
* *Target:* AEM
* *Update type:* Synchronous (real-time content update)
* *Trigger:* On call
* *Typology:* Create (new data stream creation)
* Integration mode: REST and SOAP
* *Methodology:* Delete

## Delete Destination – Swagger

The swagger and its fields (with description) are given below in order to connect via API.

### *Delete Destination – Request*

Parameters:

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| reqTimestamp*(header)* | string | Timing at which the call was made, e.g. "1640019167" |
| source *(header)* | string | Source system. This field is unique and should be agreed with TDH022, e.g."RegionePuglia". The length of the string is 50. |
| e2eKey *(header)* | string | Unique key of the entire transaction. The length of the string is 50, e.g. "1232432eeer23" |
| identifier(\*)[[2]](#footnote-3) *(path)* | string | Unique key |

Table 5 - Delete Destination Request structure

### *Delete Destination – Response*

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Field** | **Type** | **Description** |
| 200 | codiceEsito | integer | Outcome of request processing. 1=> OK , 0 => KO . E.g. "1" |
| id | string | String of size 50. It indicates the unique key of the TDH022 system that identifies the resource. E.g. "21396293821" |
| message | string | String of size 50. IT represents the outcome of request processing. E.g. “Bad Request" |
| 400 | codiceEsito | string | Outcome code |
| 500 | codiceEsito | string | Outcome code |

Table 6 - Delete Destination Response structure

# Put Menu interface

This web API will allow the user to interface with the TDH022, by letting him know the menu available at the specific destination selected.

The specifications of this API are given:

* *Source:* Third Parties (Third Parties displaying content on the TDH)
* *Target:* AEM
* *Update type:* Synchronous (real-time content update)
* *Trigger:* On call
* *Typology:* Create (new data stream creation) and Update (existing flow editing)
* Integration mode: REST and SOAP
* *Methodology:* Put

## Put Menu – Swagger

The swagger and its fields (with description) are given below in order to connect via API.

### *Put Menu – Request*

Parameters:

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| reqTimestamp***(header)*** | **string** | Timing at which the call was made, e.g. "1640019167" |
| source ***(header)*** | **string** | Source system. This field is unique and should be agreed with TDH022, e.g."RegionePuglia". The length of the string is 50. |
| e2eKey ***(header)*** | **string** | Unique key of the entire transaction. The length of the string is 50, e.g. "1232432eeer23" |
| putMenuRequest (\*)[[3]](#footnote-4) ***(body)*** | **object** | Unique key |

Table 7 - Put Menu Request structure

Body:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| menu | identifier | **string** |  |  | |  | Unique Menu key. Example, Menu2 |
| price | **number($double)** |  | |  |  | Shows the Menu Price. |
| Media | **MediaURL** | **string** | |  |  | Specifies audio/video url |
| **MediaDescription** | **string** | |  |  | Specifies audio/video description |
| **MediaCredit** | **string** | |  |  | Specifies audio/video credits |
| **MediaLicense** | **string** | |  |  | Licence code for audio/video use |
| **MediaLicenseURL** | **string** | |  |  | Audio/video licence URL |
| **MediaType** | **string** | |  |  | Specifies if Audio or Video |
|  | **MediaTitle** | **String** | |  |  | Specifies the title of the media |
|  | **MediaEndDate** | **String** | |  |  | Specifies the end of life of the media |
|  | **isExternal** | **string** | |  |  | Indicates whether it is an audio/video from external sources. Example YouTube |
| description | **string** |  | |  |  | Specifies Menu description. Example, fixed price menu Children |
| currency | **string** |  | |  |  | Specifies Price Currency |
| section | item | price | | string |  | Specifies Article Price |
| name | | string |  | Specifies Article name. Example, Tonned Calf |
| description | | string |  | Specifies an Item Description. Example, Tonned Veal, Classic Recipe |
| currency | | string |  | Specifies Price Currency |
| Image | | ImageURL | string | Specifies Image Url |
| ImageDescription | string | Specifies Image description |
| ImageCredit | string | Specifies Image Credits |
| ImageLicense | string | Licence code for image use |
| ImageLicenseURL | string | Url for image use |
| ImageWidth | number($double) | Width of the image |
| ImageHeight | number($double) | Height of the image |
|  |  | | ImageTitle | string | Image Title |
|  |  | | ImageEndDate | string | Image expiry date |
| name | **string** | |  |  | Name the section to which it belongs. Example, First course, Second course |
| image | ImageURL | | **string** |  | Url of the image |
| ImageDescription | | **string** |  | Image description |
| ImageCredit | | **string** |  | Image Credits |
| ImageLicense | | **string** |  | Licence code for image use |
| ImageLicenseURL | | **string** |  | Url for image use |
| ImageWidth | | number($double) |  | Width of the image |
| imageHeight | | number($double) |  | Height of the image |
|  |  | ImageTitle | | string |  | Image Title |
|  |  | ImageEndDate | | string |  | Image expiry date |
| url | **string** |  | |  |  | Name of Menu Url |
| destinationID | **[string]** |  |  | |  |  |  |
| feature | id | **string** |  | | Additional field for future developments | | |
| value | **string** |  | | Additional field for future developments | | |

Table 8 - Put Menu Body structure

### *Put Menu – Response*

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Field** | **Type** | **Description** |
| 200 | codiceEsito | Integer | **Outcome of request processing. 1=> OK , 0 => KO . E.g. "1"** |
| id | string | **String of size 50. It indicates the unique key of the TDH022 system that identifies the resource. E.g. "21396293821"** |
| message | string | **String of size 50. IT represents the outcome of request processing. E.g. “Bad Request"** |
| 400 | codiceEsito | string | **Outcome code** |
| 500 | codiceEsito | string | **Outcome code** |

Table 9 - Put Menu Response structure

# Delete Menu Interface

This web API will allow the user to interface with the TDH022 deleting the menu related to a specific selected destination.

The specifications for this API are given below:

* *Source:* Third Parties (Third Parties displaying content on the TDH)
* *Target:* AEM
* *Update type:* Synchronous (real-time content updating)
* *Trigger:* On call
* *Typology:* Create (new data stream creation)
* Integration mode: REST and SOAP
* *Methodology:* Delete

## Delete Menu – Swagger

The swagger and its fields (with description) are given below in order to connect via API.

### *Delete Menu – Request*

Parameters:

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Description** |
| reqTimestamp*(header)* | string | Timing at which the call was made, e.g. "1640019167" |
| source *(header)* | string | Source system. This field is unique and should be agreed with the TDH022, e.g."RegionePuglia". The length of the string is 50. |
| e2eKey *(header)* | string | Unique key of the entire transaction. The length of the string is 50, e.g. "1232432eeer23" |
| identifier(\*)[[4]](#footnote-5) *(path)* | string | Unique key |

Table 10 - Delete Menu Request structure

### *Delete Menu – Response*

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Field** | **Type** | **Description** |
| 200 | codiceEsito | integer | Outcome of request processing. 1=> OK , 0 => KO . E.g. "1" |
| id | string | String of size 50. It indicates the unique key of TDH022 system that identifies the resource. E.g. "21396293821" |
| message | string | String of size 50. IT represents the outcome of request processing. E.g. “Bad Request" |
| 400 | codiceEsito | string | Outcome code |
| 500 | codiceEsito | string | Outcome code |

Table 11 - Delete Menu Response structure

# API to be exposed by Catering Partners

In order to interconnect with TDH, Catering Partners shall expose at least the following APIs:

* Dedicated API to retrieving any establishment within a given geographical area or related to a given address with a flag showing availability for online booking (e.g. getRestaurantList),
* Dedicated API to check tables availability of within the specific location (e.g. get Availability),
* Dedicated API to allow the booking of the previously selected table (e.g. put Reservation).

In addition to this, Partners undertake to make available data and statistics regarding successful (“show”) and unsuccessful (“no show”) bookings.

Finally, if technological integration for the purposes of interoperability should take place via the supplier's widgets instead of the services listed in this document, this integration will not be mediated by the Middleware but will be managed directly between the front-end and the supplier.

## SLA assumed volumes of the APIs exposed by Catering Partners side

The goal of this paragraph is sharing the assumed volumes regarding the API invocations exposed by Catering Partners. The following table shows the projections of volumes starting from an assumption of traffic generated towards the TDH:

|  |  |  |  |
| --- | --- | --- | --- |
| **ASSUMED HOURLY CALLS** | | **ASSUMED TOTAL DAILY CALLS** | |
| **Average Calls** | **Peak (peak hours of the day)** | **Total average** | **Of which Peak (peak hours of the day)** |
| 3.600 | 9.000 | 86.400 | 72.000 |

Table 12 – Assumed volumes of API calls

Here is an explanation of the above table:

* The Average of hourly calls has been assumed considering 10% of the total hourly calls on TDH dedicated to Catering;
* The Peak of hourly calls was assumed by calculating 25% of the total hourly calls on TDH in the time slots 11-15 e 19-22;
* Total daily calls side assumes a peak of 72,000 calls in the two time bands defined above out of a total of 86,400 daily calls.

1. Required field [↑](#footnote-ref-2)
2. Required Field [↑](#footnote-ref-3)
3. Required field [↑](#footnote-ref-4)
4. Required Field [↑](#footnote-ref-5)