EN_Internet Booking Engine (Sirena-Travel)

API documentation

Document version	v2.3.100 (Sirena) 2.3 - recommended API version 100 – sprint number where recent changes were introduced
Supported API versions	v2.2, v2.3

Contents

Change history

Date (dd.mm.yy)	Version	Changelog	Author
22.11.2023	2.3.100	Added: • accompanimentBookingInfo[] array in POST Reservation request • accompanimentBookingsInfo[] array in POST/GET Reservation(/Advanced) response • parameters outboundBonus, returnBonus in the POST/GET Reservation(/Advanced) response • outboundBonus, returnBonus parameters in GET flights response (v2.3) • parameters mil, mir, mnn, mns, mml in the GET flights request • fareCode parameter in the GET flights response in the BaggageAllowances array • fareCode parameter in POST/GET Reservation response (/Advanced) • flightsWithOpenDateCount parameter in POST/GET Reservation response (v2.3) • separatePrice, separateDiscount parameters in POST/GET Reservation (/Advanced) responses • separateFareFamilies, separateFlights, separateDuration, separateBaggageAllowances arrays in POST/GET Reservation (/Advanced) responses • new types of passengers MIR (RF Ministry of Internal Affairs), MNN (military child), MNS (military baby), MIL (RF Ministry of Internal Affairs, in development), MML (flying with a military man, in development)	Savin A.A.

03.10.2023	03.10.2023	Added: • array of informationalServices[] in the api/Reservation response • parameters Code share and Code share Flight Number in the api/flights and api/Reservation response to determine the flight codeshare • validation of the number of characters for the full name has been changed, from 20 characters for each parameter to 43 characters for the sum of the full name	Mikhaylov M.F.
03.08.2023	2.3.98	Added: • A FlightReference [] array into response post api/Partners/id into array PreselectedOption [] for indicating a flight segment with preselected additional option. • A RelatedChildrenReferenceNumbers [] array into responses: post and get api/Reservation; get api/Reservation/Advanced v2.3; post api/Reservation/AddSSR v2.3, to indicate child passengers which are travelling with an Adult. • A baseFarePricesBySegment [] array into responses: get and post api/Reservation v2.3; get api/Reservation/Advanced v2.3; post api/Reservation/AddSSR v2.3, with an information of base fare price for segments. • A refundOnlyWithTicket parameter into post api/Refund/Calculate; api/Refund/Partial; api/InvoluntaryRefund/Moneyless; api/InvoluntaryRefund which are indicating a responsibility to refund an additional option without a ticket. • A recommendations [] array was extended 'outboundDiscount' and 'returnDiscount' values for every valid combinations of flight segments for booking.	Usolkin R.A.

30.06.2023	2.3.97	Added: • code parameter to the recommendations[].outboundFareAndAmountDetails[] and recommendations[].returnFareAndAmountDetails[] arrays of GET api/flights service response, determines which fare brand the segment belongs to; • check-in services; • service of checking of participation of passengers in the loyalty program POST api/searchContact (unavailable for agents); • optimized method of removing services from the reservation POST api/services/removeByReferences; • preselectedSeats array of pre-added seats to the GET api/seatmap service response for the main IBE application; • to the Attachment: Dictionaries description of statuses of seats on checkin. Changed: • description of the documentNumber parameter in the GET api/reservation service response - masked according to the specified rules number of document of passenger; • deleted taskId parameter (task Id in CRM) from the POST api/receipt service response.	Gudumak S.E.
24.05.2023	2.3.96	Added: • relatedInfantWithSeatId parameter for POST SeatmapStandalone, POST CatalogueStandalone services • InfantsWithSeats parameter for POST Discounts, POST Reservation services • ins parameter for GET Flight service • an array for contacts not related to a passenger for POST Resrvation service • flightNumber parameter type changed from string to integer	Savin A.A.

12.04.2023	2.3.95	Added: • services for registration POST Checkin/reservation, POST Checkin/register, POST Checkin/cancel, GET Seatmap/checkin • updated method GET Checkin • boarding pass receipt service GET BoardingPass • services for working with certificates GET certificate/CheckCertificate/Advanced и POST Certificate/Refund • the country of South Ossetia has been added to the Attachment: Directories of countries	Mikhaylov M.F
09.03.2023	2.3.94	Added: • the isGiftCertificate parameter in POST api/certificate/apply and POST api/certificate services responses, which indicates whether the certificate being applied is a gift certificate or not; • the appliedCertificates array in GET api/reservation response with information about applied certificates; • the quotas array in GET api/catalogue v2.3 and POST api/catalogueStandalone responses with information about available quotas for the service (currently this parameter is returned only for the service with the PETC code); • to the Attachment: Dictionaries of document types added other type of document with documentType = 3.	Gudumak S.E.
13.02.2023	2.3.93	Added: • services for operating with certificates GET, POST, DELETE certificate, POST certificate/apply, GET certificate/CheckCertificate	Savin A.A.

22.12.2022	2.3.92	Added: • the tourCode parameter in the POST reservation creation service; • service for the voluntary rebook of tickets on the ADP environment; • added expirationUtc parameter for the services GET reservation, GET reservation; • ability to create reservation with unaccompanied child.	Savin A.A.
17.11.2022	2.3.91	Changed: • mandatory of query-parameters in GET api/seatmap request: only the referenceNumber of flight is required parameter; • format of loyaltyCard parameter in POST api/reservation request.	Gudumak S.E.

03.10.2022	2.3.90	Added: • parameters checkedIn, checkInHasStarted are supported and parameters checkedInSegment, checkInHasStartedSegment are added in GET api/reservation and GET api/reservation/advanced; • parameters couponStatuses, couponStatusesBySegment in GET api/reservation and GET api/reservation/advanced are supported; • parameters flightReferences are added in GET reservation in arrays baseFarePrices и tickets; • MMI, INS passenger types are added; • DELETE api/reservation method to delete unpaid reservations was added; • the ability to pass PNR and lastName parameters in Cyrillic in GET api/reservation method; • description of SSR with SPAX type to Attachment: Service SSR; • ability to open reservation in BMM via ticketNumber; • booking payment service api/payment; • online checkin service api/checkin; • change passenger's data service api/passenger; • contact info add service api/Reservation/AddContactInfo; • service for retrieving SSR and remarks information api/version/Reservation/Advanced; • service for add SSR to the reservation /Reservaton/AddSSR.	Sheremet T.Y. Gudumak S.E. Savin A.A. Mikhaylov M.F.
01.09.2022	2.3.89.1	Changed the title and description for ADP method POST api/InvoluntaryRefund/moneyless.	Gudumak S.E.

29.08.2022	2.3.89	Added: • services for working with queues on ADP environment; • STR, JNN passenger types are added to the EN_8_1_Attachment: Dictionaries; • service for obtaining recommendations for exchange; • accountCode parameter is supported in GET api/calendar, GET api/flights, POST api/reservation; • endorsements array is supported in POST api/reservation and GET api/reservation; • added the ability to receive discounts on flight via conventional and promocode discounts; • added the ability to receive TFC (Tariff Application Conditions) in POST/flights/conditions; • to the response of GET api/reservation method information about spent bonuses: spentBonuses and spentBonusesByPassengers; • the parameters of loyaltyCard and loyaltyCardValidTo to the POST api/reservation request; • POST api/InvoluntaryRefund method; • POST api/InvoluntaryRefund/moneyless method for ADP which let to refund tickets without returning money; • POST api/refund/Calculate and POST api/refund/partial methods - standard methods for calculating and performing voluntary refund; • GET api/refund method for getting information about already performed refunds; • the Attachment: Service SSR; • POST api/user method.	Gudumak S.E. Savin A.A. Sheremet T.Y.

26.07.2022	2.3.88	Added the ability to create reservations for subsidized passengers: ▪ src, yth parameters are supported in GET api/calendar, GET api/flights; ▪ the isSubsidized parameter is supported in POST api/reservation; ▪ the attachment dictionaries of passenger types has been updated. The possibility of payment in different currencies has been implemented: ▪ the currency parameter is supported in GET api/flights; ▪ the currency parameter is not used when creating a reservation in the POST api/reservation, a note has been added. The expectedPrice and searchPrice parameters are not used when creating a reservation. Added the ability to cancel seats Added the ability to partially cancel a booking Added the ability to add partner service to a booking Added the ability to void tickets and additional services	Gudumak S.E. Savin A.A. Sheremet T.Y.

07.07.2022	2.3.87	Initial version of the documentation. Important changes after integration with Sirenaz-Travel: ▪ changed GDS; ▪ changed booking process that now it is available only in one step without advanced reservation; ▪ to the responses of POST/GET api/reservation added new parameters relatedAdultReferenceNumber and relatedInfantReferenceNumber; ▪ in the response of POST/GET api/reservation changed the description of engineType parameter; ▪ added the second way of getting the itinerary receipt; ▪ services statuses Dictionary was added to Attachment 8_1. *Note: some services and parameters are under development, so they are marked accordingly.*	Gudumak S.E. Savin A.A.

Glossary

U6	Ural Airlines company
IBE, booking engine	Internet Booking Engine, U6 new ticket booking system. IBE API is described in this document.
Sirena	Global ticket booking system (GDS)
SIG	Integrator(vendor) of searching solutions from different GDS.
CRM	Customer management system integrated with IBE
BPC	Booking payment system integrated with IBE
WSAP	Web Service Access Point
PNR	Passenger name record on Sirena side. Contains information regarding flights, passenger data, auxiliary services, discounts etc.
SSR	Special Service Request. In current documentation almost always treated as "separate record in PNR". Record might contain information about passenger, services and other.
TST	Transitional Stored Ticket, part of Sirena document with information regarding tariff options in PNR.
TSM	Transitional Stored Miscellaneous, part of Sirena document with information regarding auxiliary services, added in PNR.

General provision

Purpose of this document is to provide IBE API methods description and its usage samples for 3rd party developers.

IBE API represents REST API which allows to search tickets and prices, book tickets on different flight directions, add auxiliary services and perform payment.

IBE API appears to be an interlayer between Sirena/SIG/CRM/BPC systems, other partners services and end-user client applications.

General information about API methods

API Versions

Recommended API version: v2.3

Recommended to use for all kind of requests.

Queries without specifying of API version is prohibited (exception: api/health service);

Supported versions: v2.2, v2.3

General information about API v2.x methods

Main differences between v 2.x and v 1.x:

Added possibility of using unique API-key instead of token. It allows to request flights and calendar information without necessity to create a session.

It this information needs to be stored in booking context then you should create a booking session via api/v2.x/session method and pass session ID in X-Session header. X-Api-Key header should be also be passed.

HTTP(S)-headers v2.x

For IBE API v2.x queries following HTTP(S) headers should be used:

Header name	Value	Purpose	Exceptions
X-Api-Key	xApiKey - key value. Depends on app type (arcadia, axmor, skyscanner)	authorization API-key	Service API methods

X-Session	sessionKey — value, retrieved from API Session query	Session management via HTTP header	POST session method GET flights method GET calendar method GET reservation method GET receipt without parameters Services methods except problemNotification.
Content-Type	application/json	General	No

IBE API services query

IBE API query string in common case (except service API methods) looks like: http://host/api/apiVersion/serviceName

where host – server, where booking engine is deployed

api – constant,

apiVersion – necessary IBE API version in «v2.x» format

serviceName – IBE API service name, for ex. «session» или «flights»

IBE API services response codes

IBE API handles exception situations thrown during service query execution. Following responses might be returned:

200 OK – both success and failed. In case of failed response, success field in response will be set to false. Error codes array will contain error code and description.

400 Bad Request – in case if query string was incorrect. Response model might differ from one used for correct service response.

401 Unauthorized – in case if API-кey was not passed

Also codes specific for particular service might be returned.

Booking flow description

General booking flow

Booking flow consists of following API v2.x queries:

№	API Method	Description
1	POST api/session	Retrieving of unique booking session. Booking context is stored in session.
2	GET api/flights	Retrieving information about flights, tariffs and prices.
3	POST api/reservation	Booking creation: 1. Adding flights information 2. Adding passenger's data 3. Adding tariff's data Can be done in one way: single query passing all data.
4	GET api/catalogue	Optional. Obtaining list of auxiliary services (U6 and partners) and its prices
5	GET api/seatmap	Optional. Obtaining plane's seatmap and seat prices.
6	POST api/services	Optional Adding auxiliary services (u6's or partner's) to booking
7	*GET api/partners/types*	Optional Retrieve list of available partners.
8	*GET api/partners/[id]*	Optional Retrieve list of services available for specific partner. Where id is partner's number (presented in attachment)

9	*POST api/partners*	Optional. Adding of partner's service to booking.
10	*POST api/payment*	Obtaining link for redirection to payment page
11	GET api/reservation	Optional Retrieving information about paid booking (issued tickets etc)

Description of partners services upsale process after payment

Starting form API 2.2 version IBE supports possibility to upsale auxiliary services in context of new session

№	API Method	Description
1	-	Booking creation and payment according process described above.
2	POST api/session	Obtaining of new session which will be used for services upsale
3	GET api/reservation	X-Session header is mandatory Loading of payed booking context into session
4	GET api/catalogue	Obtaining list of auxiliary services (U6 and partners) and its prices
5	GET api/seatmap	Optional. Obtaining plane's seatmap and seat prices.
6	POST api/services	Adding auxiliary services (u6's or partner's) to booking
7	POST api/payment	Obtaining link for redirection to payment page

API methods description

Obtain session service

API service	session
Short description	Allows to obtain session for storing booking context
Supported HTTP(S)-methods	POST
Conterminous systems methods used	no

POST session method

Description: new session creation

At present session expires in 60 minutes each API query automatically prolongates it.

Request format /api/apiVersion/session

Request header

X-Api-Key - unique GUID of system using IBE API.

Request paramaters

No parameters

Response format

```
{
    "sessionKey": "string",
    "sessionId": "string"
}
```

Response parameters

Parameter	Description
sessionKey	Session key Used for storing of booking context

sessionId	Id session service field

Response sample

```
{
    "sessionKey": "ad712a62-3d18-4d3a-bd3b-6d883d111aaf",
    "sessionId": "654cc0ec-c857-955f-af82-792a239675b6"
}
```

Obtain flights service: api/flights

Obtain flights service v2.2

API service	flights
Short description	Obtain list of available flights for specified dates and recommendations with ticket prices
Supported HTTP(S)-methods	GET
Conterminous systems methods used	**Sirena:** pricing_route, pricing_route_and_mono_brand_tail **SIG:** SIG_AirShop **CRM:** CalculateDiscount

GET flights method

Description: obtain list of flights and flight's prices

Request format: /api/apiVersion/flights

Request samples

One way flight:

/api/apiVersion/flights

?orig=LED&dest=MOW&dep=20220710&mode=Mono&adt=1&chd=0&inf=0&src=0&yth=0&umnr=0&str=0&jnn=0&gcf=0&jcb=0

Two way flight:

/api/apiVersion/flights

?orig=LED&dest=MOW&dep=20220710&ret=20220717&mode=Mono&adt=1&chd=0&inf=0&src=0&yth=0&umnr=0&str=0&jnn=0&gcf=0&jcb=0

Request parameters

IMPORTANT: non-subsidised (ADT/CHD/INF) set of passengers types should be used in request; to receive recommendations for round trip reservation need to use mode=Mono parameter

Parameter	Type	Description	Value samples	Notes
orig	string	Original airport IATA-code	LED	
dest	string	Destination airport IATA-code	DME	
dep	date	Departure date	Format yyyyMMdd Sample: 20180801	
ret	date	Return date	Формат yyyyMMdd Пример: 20180905	
adt	integer	number of Adult passengers	Integer number in interval [0; 9]. Overall number of passengers must not exceed 9	
chd	integer	number of Child passengers		
inf	integer	number of Infant passengers		
ins	integer	number of Infant with seats passengers		
src	integer	number of Senior citizen passengers		
yth	integer	number of Youth passengers		
cnn	integer	number of passengers of «subsidised child» type		
str	integer	number of passengers of subsidized adult for the Far East		In developing

jnn	integer	number of passengers of subsidized children for the Far East		In developing
gcf	integer	number of passengers of subsidized pensioner for the Far East		In developing
jcb	integer	number of passengers of subsidized youth passengers for the Far East		In developing
mil	integer	Number of passengers of the type "Ministry of Defence of the Russian Federation"		
mir	integer	Number of passengers of the type "Ministry of Internal Affairs of the Russian Federation"		
mnn	integer	Number of passengers of the "military children" type		
mns	integer	Number of "infant with seat" passengers		
mml	integer	Number of passengers flying with a military man		
mode	string	Search mode (optional parameter, affects search via SIG)	mono - only mono-recommendations are requested, for example, PR there and PR back; full - all recommendations are requested.	For the Sirena search now it uses mode=Mono, full - in developing

ofn	string	Array of one-way flight numbers (optional parameter, affects search via SIG)	60	In developing
rfn	string	Array of return flight numbers (optional, affects search via SIG)	371,392	In developing
accountCode	string	Personal account client code (optional parameter)	ACCadd005	
meta	boolean	Sign of metasearch.		In developing
currency	string	Currency of recommendations.	EUR	
cabin	string	Class of service	Economy, Business	In developing
SearchAllBrands	bool	Search for all brands		In developing

Response format

```
{
    "data": {
        "airShopSessionId": string,
        "currency": string,
        "outboundFlights": [flightGroup],
        "returnFlights": [flightGroup],
        "fareFamilies": [{
                "fareFamilyId": integer,
                "code": string,
                "shortCode": string,
                "category": string,
                "isSubsidized": boolean,
                "order": integer,
                "commercialFamily": string,
                "canRefund": boolean,
                "hasUpsale": boolean "options": [{
                        "code": string,
                        "category": string,
                        "order": integer,
                        "showInPopup": boolean,
                        "showInSummary": boolean,
                        "showInUpsell": boolean,
                        "showInFareIncluded": boolean,
                        "showForAdult": boolean,
                        "showForInfant": boolean
```

```
            }
        ]
    }
],
"foodOnBoards": [{
        "departureAirport": string,
        "arrivalAirport": string,
        "flightNumber": integer,
                      "commercialFamily": string,
        "translation": {
            "ru": string,
            "en": string,
            "zh": string
        }
    }
],
"alternativeFlights": [{
        "departure": string,
        "arrival": string
    }
],
"discountConstraints": [{
        "fareFamilies": [string],
        "flights": [string],
        "excludedFlights": [{
                "flightNumber": integer,
                "departureAirport": string,
                "arrivalAirport": string
            }
        ]
    }
],
"recommendations": [{
        "outboundFlightGroupId": integer,
        "outboundFareFamilyId": integer,
        "returnFlightGroupId": integer,
        "returnFareFamilyId": integer,
        "outboundFlightGroupHash": string,
        "returnFlightGroupHash": string,
        "outboundFareFamilyCode": string,
        "returnFareFamilyCode": string,
        "outboundPrice": integer,
        "outboundTaxes": integer,
        "returnPrice": integer,
        "returnTaxes": integer,
        "outboundSeatsLeft": integer,
        "returnSeatsLeft": integer,
        "totalPrice": integer,
                      "outboundFareAndAmountDetails": [{
                "bookingCode": string,
                "fareBasis": string,
                "isBreakpoint": boolean,
                "paxType": integer,
                "paxCount": integer,
                "taxAmount": integer,
                "totalAmount": integer,
                "isSale": boolean,
                                      "code": string
            }
        ],
        "returnFareAndAmountDetails": [{
                "bookingCode": string,
                "fareBasis": string,
                "isBreakpoint": boolean,
                "paxType": integer,
                "paxCount": integer,
                "taxAmount": integer,
                "totalAmount": integer,
                                      "code": string
            }
        ],
        "outboundBaggageAllowances": [{
                "quantity": integer,
                "weight": integer,
                "passengerType": integer,
                                      "fareCode": string
            }
        ],
        "returnBaggageAllowances": [{
                "quantity": integer,
                "weight": integer,
                "passengerType": integer,
                                      "fareCode": string
            }
        ],
        "discount": {
            "id": string,
            "name": string,
            "amount": integer,
            "discountType": integer,
            "usageType": integer,
            "startDate": datetime,
            "endDate": datetime
        },
        "promotion": {
            "number": string,
            "amount": integer,
            "promotionStatus": string,
            "promotionType": string,
            "description": string,
            "startFlightDate": datetime,
            "endFlightDate": datetime,
            "startDate": datetime,
            "endDate": datetime,
            "isUnique": boolean,
            "campaignId": string,
            "directions": [{
                    "id": string,
                    "origin": string,
                    "destination": string
                }
            ],
            "services": [{
                    "code": string
```

```
                        }
                    ],
                    "families": [{
                            "code": string
                        }
                    ],
                    "hasConflict": boolean,
                    "excludedFlights": [{
                            "flightNumber": integer,
                            "departureAirport": string,
                            "arrivalAirport": string
                        }
                    ]
                }
            }
        ],
        "moneyWallCoefficient": integer,
        "containsInternationalFlights": bool
    },
    "errors": [{
            "ibeCode": integer,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string
                }
            ]
        }
    ],
    "success": boolean
}
```

flightGroup object

```
{
  "flightGroupId": integer,
  "flights": [{
      "flightId": integer,
      "departureAirport": string,
      "departureTerminal": string,
      "arrivalAirport": string,
      "arrivalTerminal": string,
      "departureDateTime": datetime,
      "excludedNationalities": [
          string
      ]
      "arrivalDateTime": datetime,
      "aircraft": string,
      "aircraftIataCode": string,
      "techStops": [{
          "arrivalDateTime": datetime,
          "departureDateTime": datetime,
          "airportCode": string,
          "stopDuration": string,
          "flightDurationUntilNextStop": string
        }
      ],
      "flightDuration": string,
      "flightDurationUntilNextStop": string,
      "stopDuration": string,
      "flightNumber": integer,
      "marketingCarrier": string,
      "operatingCarrier": string,
      "codeshare": string,
      "codeshareFlightNumber": string
      "hash": string
    }
  ],
  "flightGroupDuration": string,
  "hash": string
}
```

Response format if there are no flights for the requested dates (round trip)

```
{
  "data": {
    "outboundFlights": [],
    "returnFlights": [],
    "fareFamilies": [],
    "recommendations": [],
    "outboundNextNearestFlightDate": datetime,
    "returnNextNearestFlightDate": datetime,
    "foodOnBoards": [],
    "currency": string,
    "airShopSessionId": string,
    "moneyWallCoefficient": integer
  },
  "errors": [],
  "success": boolean
}
```

Response parameters

Parameter	Description	Notes
success	Sign of query execution success. If errors array is empty, field value will be set to true	
data	Returned data	
airShopSessionId	SIG search session ID	

	currency		currency in which prices are represented	
	moneyWallCoefficient		Coefficient for calculating the monthly installment payment	
	containsInternationalFlights		Sign that one of the airports is located outside the territory of the RF	
	outboundFlights		Array of flightGroup objects with information about outbound flights	
	returnFlights		Array of flightGroup objects with information about return flights. For one way flight array will be empty	
	fareFamilies		Array of objects with information about fare families	
		fareFamilyId	Fare family ID	
		code	Fare family code, for ex: ECOLIGHTRU/ECOFLEXRU/ECOPREMRU etc.	
		shortCode	Shortened code for fare family identification for example for fare families mentioned above: PR/EC/FL etc.	
		category	Fare family category, for ex: ECOLIGHT/ECOFLEX/ECOPREM Possible values: see Attachment 2, Main fare family categories	
		order	fare families display order	
		commercialFamily	fare family type for ex: U6ECONOMY or U6BUSINESS	
		isSubsidized	Sign of subsidised tariff	

		canRefund		Sign of refundable tariff	For Sirena: in developing
		hasUpsale		Sign indentifying whether present tariff can be upgraded to next one in price category. Used for management of Upsale block display in frontend.	
		options		Array of fareFamiliesOptions objects with information about tariff options. Possible values: see Attachment 2, tariff options	
	outboundNextNearestFlightDate			The nearest departure date for one-way flight, if there are no flights on the requested date	For Sirena: in developing
	returnNextNearestFlightDate			The closest date of departure back, if the flight is RT and there are no flights for the requested dates	For Sirena: in developing
	foodOnBoards			Array of objects with information about meals available on the flight	
		departureAirport		Airport of departure	
		arrivalAirport		Airport of arrival	
		flightNumber		Flight number	
		commercialFamily		Fare family type (different type of meals for economy and business can be available for one flight)	
		translation		Object with translation options	
			ru	Options translation to russian	
			en	Options translation to english	
			zh	Option translation chinese	
	alternativeFlights			Alternative destinations (returned from CRM if no flights were found on the selected date)	

		departure		Departure airport of alternative direction	
		arrival		Arrival airport of alternative destination	
	discountConstraints			Array of objects with information about exceptions in discounts	
		fareFamilies		Array of fare families for which discount should be applied	
		flights		Array of flight numbers for which discount should be applied If at least one of transfers of the flight is not present in array, discount should not be applied	
		excludedFlights		Array of objects with information about flight number exceptions	
			flightNumber	Flight number	
			departureAirport	Airport of departure	
			arrivalAirport	Airport of arrival	
	recommendations			Array of recommendations objects for flights	
		outboundFlightGroupId		outbound flight number, matches one of outboundFlights.flightGroupId numbers	
		outboundFareFamilyId		outbound fare family number, matches one of fareFamilies.fareFamilyId numbers	
		returnFlightGroupId		return flight number, matches one of returnFlights.flightGroupId numbers	
		returnFareFamilyId		return fare family number, matches one of fareFamilies.fareFamilyId numbers	
		outboundFlightGroupHash		Flight group hash there	
		returnFlightGroupHash		Flight group hash back	
		outboundFareFamilyCode		Fare family code for outbound travel Matches fareFamilies.code	
		returnFareFamilyCode		Return Fare Family Code Matches fareFamilies.code	
		outboundPrice		outbound ticket's price	

		outboundTaxes		outbound ticket's tariffs and fees	
		returnPrice		return ticket's price	
		returnTaxes		return ticket's tariffs and fees	
		outboundSeatsLeft		Amount of remaining seats for present outbound recommendation	
		returnSeatsLeft		Amount of remaining seats for present return recommendation	
		totalDiscount		Amount of discount	For Sirena: in developing
		totalBaseFare		Total amount of base fare	
		totalPrice		Total ticket price including all applied discounts	
		outboundFareAndAmountDetails		An array of fareDetails objects containing detailed information about fares for the “there” direction	
		returnFareAndAmountDetails		An array of fareDetails objects containing detailed information about fares for the "return" route	
		outboundBaggageAllowances		An array of objects containing detailed information about baggage allowances for the “there” route	
		returnBaggageAllowances		An array of objects containing detailed information about baggage allowances for the "return" route	
		discount		Information about discount available for present flight Discount may absent for certain flight they are in the list of exceptions. Exceptions stored on CRM and IBE side.	
			id	Discount campaign id in CRM	
			name	Discount campaign title	
			amount	Discount amount	

			discountType	Discount type, possible values 0 – Percent 1 – Roubles It is recommended to check discount type against its value. For ex for type 0 amount should be within [0;100] interval.	
			usageType	Discount application type, possible values: 0 – Fare 1 – Order	
			startDate	Discount interval start date	
			endDate	Discount interval end date	
		promotion		Information about the promo code applied for this flight.	
			number	Promo code	
			amount	Discount amount by promo code	
			promotionStatus	Promo code status Possible values: dictionary of promo codes statuses	
			promotionType	Promo code type 0 - promotional code for the flight 1 - promotional code for an additional service	
			description	Description of the promo code campaign	
			startFlightDate	Start date of the period of flights with a promo code	
			endFlightDate	End date of the period of flights with a promo code	
			startDate	Start date of the promo code validity period	
			endDate	End date of the promo code validity period	

			isUnique		A sign of the uniqueness of a promo code	
			campaignId		Promo code campaign ID	
			directions		Directions of exclusions / inclusions	
				origin	Departure airport	
				destination	Arrival airport	
			services		An array of objects with information about the services that the promo code applies to	
				code	Service code Possible values: dictionary of additional services (except insurance)	
			excludedFlights		Common exclusions - flights for which discounts are not indicated	
				flightNumber	Flight number	
				departureAirport	Departure airport	
				arrivalAirport	Arrival airport	
			hasConflict		Sign of success in adding a promotional code to a booking False if errors occurred while adding the promo code	
errors					Information about errors appeared during query execution.	
	ibeCode				Error code	
	description				Code description	
	messages				Array of objects, containing errors from Sirena/SIG response. Array can be empty, it is recommended to analyse errors by ibeCode.	
		code			Sirena/SIG error code	
		text			Sirena/SIG error text	

Object flightGroup

Contains information about flights

data.outboundFlights or data.returnFlights	
flightGroupId	index number used in recommendations
flightGroupDuration	Total flight time: summed up of duration values of each transfer and technical stop.
hash	Service field
flights	Array of objects with information
flightId	Flight id
departureAirport	Airport of departure
departureTerminal	Terminal in airport of departure
arrivalAirport	Airport of arrival
arrivalTerminal	Terminal in airport of arrival
departureDateTime	Departure date and time Format: yyyy-MM-ddTHH:mm:ss Example: 2018-05-27T17:25:00
excludedNationalities	Array with information about passenger nationalities prohibited for transportation on present flight Example: ISR (for flights 3837 and 3838)
arrivalDateTime	Arrival date and time Format: yyyy-MM-ddTHH:mm:ss Example: 2018-05-27T20:50:00
aircraft	Full aircraft title For ex.: Airbus A320
aircraftIataCode	IATA aircraft code
flightDuration	Duration of flight
flightDurationUntilNextStop	Flight duration until first technical stop
stopDuration	Technical stop duration
flightNumber	flight number

	marketingCarrier		Marketing carrier Example: U6, S7
	operatingCarrier		Operating carrier (one actually performed flight) Example: U6, OK
	codeshare		Full aviacompany title performing code-share flight Example: Czech Airlines for operatingCarrier = OK For operatingCarrier = U6, present field is empty
	codeshareFlightNumber		The flight number of the airline that operates the codeshare flight.
	hash		service field
	techStops		Array of objects with information about technical stops
		arrivalDateTime	Date and time of arrival to airport where technical stop is performed Format: yyyy-MM-ddTHH:mm:ss Example: 2018-05-26T05:30:00
		departureDateTime	Date and time of departure from airport where technical stop is performed Format: yyyy-MM-ddTHH:mm:ss Example: 2018-05-26T08:00:00
		airportCode	Airport code
		stopDuration	Technical stop duration
		flightDurationUntilNextStop	Flight duration until next stop

Object fareFamiliesOptions

Contains information about tariff options. Used for tariff option display in IBE website.

data.fareFamilies.options

code	Tariff option code Example: upTo5bonuses, refundExchangeProhibited, mealsOnBoard etc.
category	Option category code Example: bonus, ffServices etc.
order	Index number of option display
showInPopup	flag determining whether option should be displayed in "your options" pop-up
showInSummary	flag determining whether option should be displayed on Summary page.
showInUpsell	flag determining whether option should be displayed in tariff upgrade information block
showInFareIncluded	flag determining whether option should be displayed when filter is selected
showForAdult	flag determining whether option should be displayed for adult passenger.
showForInfant	flag determining whether option should be displayed for infant.

Object fareDetails

Contains information about tariff details

data.recommendations.outboundFareDetails or data.recommendations.returnFareDetails	
bookingCode	In general case it is first symbol in fareBasis
fareBasis	Base tariff title Example: WPROW или WECOW
isBreakpoint	Flag identifying whether tariff ends on present segment.
paxType	Passenger type. Possible values: Attachments, passenger types
paxCount	Amount of passengers of specific type
taxAmount	Tariffs and fees
totalAmount	Full ticket price including tariffs and fees

isSale	A parameter that defines the sales rate
code	The parameter that determines which fare brand the segment belongs to.

Object BaggageAllowances

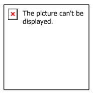
Contains information about baggage allowances

data.recommendations.outboundBaggageAllowances or data.recommendations.returnBaggageAllowances	
quantity	count of baggage
weight	weight of baggage
passengerType	passenger type
fareCode	fare family for which baggage is returned

totalPrice field value examples

One way flight, no discounts

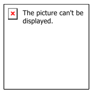
totalPrice is equal to value outboundPrice



Two way flight:

totalPrice = outboundPrice + returnPrice

totalPrice = 998 + 140 = 1138



Methods available for version 2.3

Method POST flights/conditions

Description: Aallows to get the TFC (Tariff Application Conditions).

Request format /api/apiVersion/flights/conditions

Request body

```
{
  "rulesKeys": [
    {
      "key": string
    }
  ]
}
```

Request parameters

Parameter		Description
rulesKeys		Array of objects with information about the keys of the TFC
	key	Key TFC

Request body example

```
{
  "rulesKeys": [
    {
      "key":
"eJxdjlEKwjAQRK8yFxB2N5uk7SUUf/odpGBAFKr44a8XKHhh042VKpkEJpO8WRFchzGnU36kW76c
uy6Nh2O+D2AFIZZNYKcsGiDYcLHlULAni0TQekiAR7/bb3s4+1JXAyERani54AhVaPPNmNibqfnc+
alwoY0ssVhYi1X/Ele0eVSh2AbyzgjGWIvr+BVTtPD/nlU5PKfXG/geN0w="
    },
    {
      "key":
"eJxdjlEKwjAQRK8yFxB2N5uk7SUUf/odpGBAFKr44a8XKHhh042VKpkEJpO8WRFchzGnU36kW76c
uy6Nh2O+D2AFIZZNYKcsGiDYcLHlULAni0TQekiAR7/bb3s4+1JXAyERani54AhVaPPNmNibqfnc+
alwoY0ssVhYi1X/Ele0eVSh2AbyzgjGWIvr+BVTtPD/nlU5PKfXG/geN0w="
    }
  ]
}
```

Response body

```
{
  "data": {
    "faresRules": [
      {
        "key": string,
        "fareConditions": [
          {
            "number": integer,
            "title": string,
            "description": string
          }
        ]
      }
    ]
  },
  "errors": [
    {
      "ibeCode": string,
      "description": string,
      "messages": [
        {
          "code": string,
          "text": string
        }
      ]
    }
  ],
  "success": boolean
}
```

Response parameters

Parameter				Description
data				The data returned by the request
	faresRules			Array of objects with information about rules
		key		Key TFC
		fareConditions		Array of objects with rules for the key
			number	Number of the rule
			title	Title of the rule
			description	Description of the rule
errors				Information about errors appeared during query execution
	ibeCode			Error code, see EN_Attachment 1. IBE error codes
	description			Code description, see. EN_Attachment 1. IBE error codes

	messages		Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode
		code	Sirena error code
		text	Sirena error text
success			Sign of the success of the request If the errors array is empty, then the field value will be true

Method GET flights/allFlightStatusesForDay

Description: allows to get all flights for directions on specific date

Request format: /api/apiVersion/flights/allFlightStatusesForDay

Request parameters

Parameter	Description
date	Flight date
departureAirport	Departure airport
arrivalAirport	Arrival airport

Request example

```
/api/v2.3/flights/allFlightStatusesForDay?departureAirport=DME&arrivalAirport
=SVX&date=2021-10-27
```

Response body

```
{
  "data": {
    "flightStatuses": [
      {
        "fnNumber": integer,
        "fnSuffix": string,
        "fnCarrier": string,
        "dayOfOrigin": datetime,
        "departureAirportActual": string,
        "arrivalAirportActual": string,
        "legState": string,
        "legType": string,
        "aircraftRegistration": string,
        "aircraftType": string,
        "departureAirportSched": string,
        "arrivalAirportSched": string,
        "departureDTSchedUTC": datetime,
        "arrivalDTSchedUTC": datetime,
        "departureDTSchedLocal": datetime,
        "arrivalDTSchedLocal": datetime,
        "estimatedArrivalDate": datetime,
        "offBlockDT": datetime,
        "airborneDT": datetime,
        "landingDT": datetime,
        "onBlockDT": datetime,
        "updateDT": datetime,
        "checkinSinceDTUTC": datetime,
        "checkinUntilDTUTC": datetime,
        "checkinSinceDTLocal": datetime,
        "checkinUntilDTLocal": datetime,
        "departureDTUTC": datetime,
        "departureDTLocal": datetime,
        "arrivalDTUTC": "2021-10-27T07:40:00",
        "arrivalDTLocal": "2021-10-27T12:40:00",
        "isFlightDelayed": boolean
      }
    ]
  },
  "errors": [
    {
      "ibeCode": integer,
      "description": string,
      "messages": [
        {
          "text": string
        }
      ]
    }
  ],
  "success": boolean
}
```

Response parameters

Parameter		Description
data		The data returned by the request
	flightStatuses	Array of objects with information about flights

		fnNumber	Flight number
		fnSuffix	Flight suffix
		fnCarrier	Airline operating the flight
		dayOfOrigin	Departure date of the scheduled flight
		departureAirportActual	IATA code of the airport of departure - actual
		arrivalAirportActual	IATA-code of the airport of arrival - actual
		legState	Flight status
		legType	Тип рейса
		aircraftRegistration	Flight type
		aircraftType	IATA aircraft type code
		departureAirportSched	IATA code of the scheduled departure airport
		arrivalAirportSched	IATA code of the scheduled arrival airport
		departureDTSchedUTC	Scheduled departure time UTC
		arrivalDTSchedUTC	Scheduled arrival time UTC
		departureDTSchedLocal	Scheduled departure time Local
		arrivalDTSchedLocal	Scheduled arrival time Local
		estimatedArrivalDate	Estimated time of arrival
		offBlockDT	Departure time from gate
		airborneDT	Take off time
		landingDT	Boarding time
		onBlockDT	Time of arrival at the parking lot
		updateDT	Date of last update of flight information
		checkinSinceDTUTC	Check-in start for the flight UTC
		checkinUntilDTUTC	Check-in end for the flight UTC
		checkinSinceDTLocal	Check-in start for the flight UTC
		checkinUntilDTLocal	Check-in end for the flight UTC
		departureDTUTC	Departure time UTC
		departureDTLocal	Departure time Local
		arrivalDTUTC	Arrival time UTC

		arrivalDTLocal	Arrival time Local
		isFlightDelayed	Flight delay sign
errors			Information about errors that occurred during the operation of the service.
	ibeCode		Error code, see Attachments 1. IBE error codes
	description		Error description, see Attachments 1. IBE error codes
	messages		Array of objects containing errors from the partner's response. The array may be empty, it is recommended to analyze the error by the ibeCode field.
		text	Error text
success			Sign of the success of the request. If the errors array is empty, then the field value will be true.

Response body example

```
{
  "data": {
    "flightStatuses": [
      {
        "fnNumber": 273,
        "fnSuffix": " ",
        "fnCarrier": "U6",
        "dayOfOrigin": "2021-10-27T00:00:00",
        "departureAirportActual": "DME",
        "arrivalAirportActual": "SVX",
        "legState": "SKD",
        "legType": "J",
        "aircraftRegistration": "XXXXX",
        "aircraftType": "7M8",
        "departureAirportSched": "DME",
        "arrivalAirportSched": "SVX",
        "departureDTSchedUTC": "2021-10-27T05:25:00",
        "arrivalDTSchedUTC": "2021-10-27T07:40:00",
        "departureDTSchedLocal": "2021-10-27T08:25:00",
        "arrivalDTSchedLocal": "2021-10-27T12:40:00",
        "estimatedArrivalDate": "2021-10-27T07:40:00",
        "offBlockDT": "0001-01-01T00:00:00",
        "airborneDT": "0001-01-01T00:00:00",
        "landingDT": "0001-01-01T00:00:00",
        "onBlockDT": "0001-01-01T00:00:00",
        "updateDT": "2021-03-23T06:57:00",
        "checkinSinceDTUTC": "2021-10-25T05:25:00",
        "checkinUntilDTUTC": "2021-10-27T04:45:00",
        "checkinSinceDTLocal": "2021-10-25T08:25:00",
        "checkinUntilDTLocal": "2021-10-27T07:45:00",
        "departureDTUTC": "2021-10-27T05:25:00",
        "departureDTLocal": "2021-10-27T08:25:00",
        "arrivalDTUTC": "2021-10-27T07:40:00",
        "arrivalDTLocal": "2021-10-27T12:40:00",
        "isFlightDelayed": false
      }
    ]
  },
  "errors": [],
  "success": true
}
```

Method POST flights/particularFlightsStatuses

Description: allows to get information about the flight

Request format /api/apiVersion/flights/particularFlightsStatuses

Request body

```
{
  "requests": [
    {
      "departureAirport": string,
      "arrivalAirport": string,
      "date": datetime,
      "flightNumber": integer,
      "dateTimeRange": string
    }
  ]
}
```

Request body parameters

Parameter		Description
requests		
	departureAirport	Departure airport
	arrivalAirport	Arrival airport

	date	Departure date
	flightNumber	Flight number
	dateTimeRange	If send D, the search will be carried out one day from the start time

Request body example

```
{
  "requests": [
    {
      "departureAirport": "DME",
      "arrivalAirport": "SVX",
      "date": "2021-08-03",
      "flightNumber": 261
    }
  ]
}
```

The response of this method matches the response of GET flights/allFlightStatusesForDay method

---

Method GET Flights

Description: It lets to get flights which are available for booking and are matching with specific parameters of the request.
Discounts parameters by routes are included to the response.

Request format /api/apiVersion/flights

Request parameters: It has the same realisation as for get api/Flights v2.2

Request example:

One way flight:
/api/apiVersion/flights?orig=LED&dest=MOW&dep=20220710&mode=Mono&adt=1&chd=0&inf=0&src=0&yth=0&umnr=0&str=0&jnn=0&gcf=0&jcb=0

Response body

```
{
    "data": {
        "airShopSessionId": string,
        "currency": string,
        "outboundFlights": [flightGroup],
        "returnFlights": [flightGroup],
        "fareFamilies": [{
                "fareFamilyId": integer,
                "code": string,
                "shortCode": string,
                "category": string,
                "isSubsidized": boolean,
                "order": integer,
                "commercialFamily": string,
                "canRefund": boolean,
                "hasUpsale": boolean "options": [{
                        "code": string,
                        "category": string,
                        "order": integer,
                        "showInPopup": boolean,
                        "showInSummary": boolean,
                        "showInUpsell": boolean,
                        "showInFareIncluded": boolean,
                        "showForAdult": boolean,
                        "showForInfant": boolean
                    }
                ]
            }
        ],
        "foodOnBoards": [{
                "departureAirport": string,
                "arrivalAirport": string,
                "flightNumber": integer,
                "commercialFamily": string,
                "translation": {
                    "ru": string,
                    "en": string,
                    "zh": string
                }
            }
        ],
        "alternativeFlights": [{
                "departure": string,
                "arrival": string
            }
        ],
        "discountConstraints": [{
                "fareFamilies": [string],
                "flights": [string],
                "excludedFlights": [{
                        "flightNumber": integer,
                        "departureAirport": string,
                        "arrivalAirport": string
                    }
                ]
            }
        ],
        "recommendations": [{
                "outboundFlightGroupId": integer,
                "outboundFareFamilyId": integer,
                "returnFlightGroupId": integer,
        "returnFareFamilyId": integer,
        "outboundFlightGroupHash": string,
        "returnFlightGroupHash": string,
        "outboundFareFamilyCode": string,
        "returnFareFamilyCode": string,
        "outboundPrice": integer,
        "outboundTaxes": integer,
                      "outboundDiscount": integer,
        "returnPrice": integer,
        "returnTaxes": integer,
                      "returnDiscount": integer,
        "outboundSeatsLeft": integer,
        "returnSeatsLeft": integer,
        "totalPrice": integer,
        "totalBaseFare": integer,
        "totalDiscount": integer,
        "outboundFareAndAmountDetails": [{
                "bookingCode": string,
                "fareBasis": string,
                "isBreakpoint": boolean,
                "paxType": integer,
                "paxCount": integer,
                "taxAmount": integer,
                "totalAmount": integer,
                "isSale": boolean,
                "code": string
        }
        ],
        "totalBaseFare": integer,
        "totalDiscount": integer,
        "returnFareAndAmountDetails": [{
                "bookingCode": string,
                "fareBasis": string,
                "isBreakpoint": boolean,
                "paxType": integer,
                "paxCount": integer,
                "taxAmount": integer,
                "totalAmount": integer,
                "code": string
        }
        ],
        "outboundBaggageAllowances": [{
                "quantity": integer,
                "weight": integer,
                "passengerType": integer,
                                     "fareCode": string
            }
        ],
        "returnBaggageAllowances": [{
                "quantity": integer,
                "weight": integer,
                "passengerType": integer,
                                     "fareCode": string
            }
        ],
                      "outboundBonus": {
                              "bonus": "string",
                                          "replacedBonus": "string"
                                   },
                           "returnBonus": {
                                          "bonus": "string",
                                          "replacedBonus": "string"
                                   },
                    "discount": {
                        "id": string,
                        "name": string,
                        "amount": integer,
                        "discountType": integer,
                        "usageType": integer,
                        "startDate": datetime,
                        "endDate": datetime
                    },
                    "promotion": {
                        "number": string,
                        "amount": integer,
                        "promotionStatus": string,
                        "promotionType": string,
                        "description": string,
                        "startFlightDate": datetime,
                        "endFlightDate": datetime,
                        "startDate": datetime,
                        "endDate": datetime,
                        "isUnique": boolean,
                        "campaignId": string,
                        "directions": [{
                                "id": string,
                                "origin": string,
                                "destination": string
                            }
                        ],
                        "services": [{
                                "code": string
                            }
                        ],
                        "families": [{
                                "code": string
                            }
                        ],
                        "hasConflict": boolean,
                        "excludedFlights": [{
                                "flightNumber": integer,
                                "departureAirport": string,
                                "arrivalAirport": string
                            }
                        ]
                    }
                }
            ],
            "moneyWallCoefficient": integer,
            "containsInternationalFlights": bool
        },
        "errors": [{
                "ibeCode": integer,
                "description": string,
            "messages": [{
                    "code": string,
                    "text": string
                }
            ]
        }
    ],
    "success": boolean
}
```

Response parameters (at the short form)

A description of parameters are the same as for get api/Flights v2.2
The recommendations [] array are extended by parameters for any available combination of booking:

recommendations	Array of recommendations objects for flights	
outboundDiscount	An amount of discount for "There" route	
returnDiscount	An amount of discount for "From" route	
outboundBonus	The number of bonuses awarded for a flight “there”	
bonus	Current number of bonuses awarded for the flight	
replacedBonus	Outdated number of bonuses awarded per flight	
returnBonus	The number of bonuses awarded for a return flight	
bonus	Current number of bonuses awarded for the flight	
replacedBonus	Outdated number of bonuses awarded per flight	
Parameter	**Description**	**Notes**

Booking management service: api/reservation

Booking management service v2.2

API service	reservation
Short description	The service allows to manage booking: - add information to the booking (data on flights, passengers and fares); - receive information about the reservation; - delete unpaid reservations.
Supported HTTP(S)-methods	GET, POST, DELETE
Used methods of related systems	**Sirena:** Create booking - booking Getting information on booking - order, pnr_status Getting information about coupon statuses - view_flown_status Cancel booking - booking-cancel

Method POST reservation

Description: creating a booking, adding information about flights, passengers and fares.

Inportant: There is only one option for creating a booking without advanced booking when all parameters for flights, fares and passengers are passed in one request.

Request format /api/apiVersion/reservation

Request body

```
{
  "flights": {
    "outboundFlights": [reservationFlight],
    "returnFlights": [reservationFlight],
    "adults": integer,
    "children": integer,
    "infants": integer,
        "infantsWithSeats": integer,
    "pensioners": integer,
    "youths": integer,
    "subsidizedChildren": integer,
    "origin": string,
    "destination": string,
    "passengersCount": integer
  },
  "passengers": {
    "passengers": [passengerData],
    "userAgreement": boolean
  },
  "fares": {
    "accountCode": "string",
    "tourCode": "string",
    "outboundFareFamily": {
      "code": string,
      "category": string,
      "isSubsidized": boolean
    },
    "returnFareFamily": {
      "code": string,
      "category": string,
      "isSubsidized": boolean
    },
    "fares": [{
        "passengerType": "Adult",
        "flightIndex": integer,
        "flightDirection": integer,
        "fareBasis": string,
        "isBreakpoint": boolean
      }
    ],
    "sessionMarker": string,
        "currency": string
  },
  "expectedPrice": ingeger,
  "searchPrice": ingeger,
  "airShopSessionId": string,
  "reservationContacts"[
    {
        "email": string,
        "phone": string
    }
  ]
 }
```

reservationFlight object

```
{
  "origin": string,
  "destination": string,
  "departureDate": datetime,
  "flightNumber": string,
  "classOfService": string
}
```

passengerData object

```
{
  "id": integer,
  "firstName": string,
  "middleName": string,
  "surname": string,
  "passengerType": integer,
  "birthDate": datetime,
  "sex": integer,
  "nationality": string,
  "documentNumber": string,
  "documentExpiryDate": datetime,
  "loyaltyCard": string,
  "loyaltyCardValidTo": datetime,
  "serviceClassUpOrdered": boolean,
  "email": string,
  "phone": string,
  "documentType": integer,
  "disability": {
    "isDeaf": boolean,
    "isBlind": boolean,
    "hasGuideDog": boolean,
    "assistanceType": integer,
    "wheelchairType": integer,
    "commentary": string
  },
  "endorsements": [{
    "endorsement": boolean,
    "isDisability": boolean,
    "endorsementDocNumber": string,
    "endorsementDocDate": datetime,
    "loyaltyPartnerCard": string
    }
  ],
  "accompanimentBookingInfo": [{
    "endorsement": boolean,
    "isDisability": boolean
    }
  ]
}
```

Request parameters

Parameter	Description	Notes
flights	Object with information about flights	
outboundFlights	Array of reservationFlight objects with information about flights in the "outbound" direction	

returnFlights	Array of reservationFlight objects with information about flights in the "return" direction	
adults, children, infants, infantsWithSeats pensioners, youths, subsidizedChildren	Count of passengers of each type	
origin	Departure airport	
destination	Destination airport	
passengersCount	Total count of passengers with the seat	
passengers	Object with information about passengers	
passengers	An array of passengerData objects with passengers information	
userAgreement	Sign of sending consent to the newsletter Consent is sent to CRM for all added passengers	
fares	Object with information about tariffs	
accountCode	Account Code	
tourCode	Tour Code	
outboundFareFamily	Object with information on fares for "there" direction	
code	Fare family code Data is taken from the response api/flights: data.fareFamilies.code	
category	Fare family category Data is taken from the response api/flights: data.fareFamilies.category	
isSubsidized	Sign of a subsidized tariff	Optional parameter
returnFareFamily	Object with information about fare family tariffs for return flight	

		code	Fare family code Data is taken from the response api/flights: data.fareFamilies.code	
		category	Fare family category Data is taken from the response api/flights: data.fareFamilies.category	
		isSubsidized	Sign of a subsidized tariff	Optional parameter
	fares		An array with information about tariffs for directions "outbound" and "return"	
		fareBasis	Base tariff title Data is taken from the response api/flights: data.recommendations.outboundFareDetails.fareBasis and data.recommendations.returnFareDetails.fareBasis	
		isBreakpoint	Flag identifying whether tariff ends on present segment. Data is taken from the response api/flights: data.recommendations.outboundFareDetails.isBreakpoint and data.recommendations.returnFareDetails.isBreakpoint	
		passengerType	Passenger type Possible values: see Attachment 2. Passenger types	
		flightDirection	Flight direction 0 - outbound, 1 - return	
		flightIndex	Flight index for a specific flight	
	sessionMarker		Aviasales session marker	

currency	Reservation currency	This parameter is not used to create a booking in Sirena, because for offices, the default currency is set in the settings.
expectedPrice	The expected price of the booking, taken from the api/flights	This parameter is not used to create a booking.
searchPrice	The price that was received in the search request, taken from the api/flights or api/flights/search	This parameter is not used to create a booking
airShopSessionId	SIG search session ID, taken from the api/flights response	
reservationContacts	Contacts that are not related to the passengers	
email	Email	
phone	Phone	

reservationFlight

Parameter	Description
origin	Departure airport
destination	Destination airport

departureDate	Date and time of departure The data is taken from the api/flights response: data.outboundFlights.flights.departureDateTime or data.returnFlights.flights.departureDateTime Format: yyyy-MM-ddTHH:mm:ss Example: 2018-06-20T01:00:00
flightNumber	Flight number. The data is taken from the api/flights response: data.outboundFlights.flights.flightNumber or data.returnFlights.flights.flightNumber
classOfService	Information about the selected tariff The data is taken from the api/flights response: data.recommendations.outboundFareDetails.bookingCode or data.recommendations.returnFareDetails.bookingCode

passengerData Request object

Parameter	Description	Format	Notes
id	Passenger's serial number (numbered from 1)		

firstName	Passenger's name	[A-Z], from two characters	The sum of the full name is no more than 43 characters
middleName	Passenger's patronymic (may be absent)	[A-Z], от одного символа	The sum of the full name is no more than 43 characters
surname	Passenger's surname	[A-Z], from two characters	The sum of the full name is no more than 43 characters
passengerType	Passenger type		
birthDate	Date of birth		
sex	Passenger gender Possible values: see dictionary "gender of passengers"		
nationality	Nationality (country) Possible values: dictionary of countries		

documentNumber	Document number	For different document types there is different format rules: ▪ Passport of Russian Federation: 10 chars; ▪ Foreign passport of Russian Federation: 9 chars; ▪ Birth certificate of Russian Federation: ^[IVX]+([А-Яа-я]{2}|[A-Za-z]{2,4})\d{6}$. For documents of other countries there is no special format rules.	
documentType	Document type		
documentExpiryDate	Date until which the document is valid Mandatory only for a foreign passport of Russian Federation and national passports of other countries. For other documents, it is automatically set by Sirena.		
loyaltyCard	Loyalty card number "Wings"	10 numbers	
loyaltyCardValidTo	Expiration date of the "Wings" loyalty card (transmitted only if serviceClassUpOrdered = true)		

serviceClassUpOrdered	Flag indicating that the owner of the "Wings" gold card wants to upgrade the service class		In developing
email	Email		
phone	Phone		
disability	Information about people with disabilities		
isDeaf	Hearing impairment		
isBlind	Visual impairment		
hasGuideDog	A guide dog must be accompanied, must be sent only together with the isBlind sign		
assistanceType	Passenger assistance type Possible values: dictionary of assistance types		
wheelchairType	Wheelchair type Possible values: dictionary of wheelchair type		
commentary	Comment (optional)		
endorsements	Array with information about documents to buy tickets on the subsidized fares or to apply discounts on partner loyalty cards.		
endorsement	The sign that an endorsement is adding to booking.		
isDisability	Disability endorsements.		

	endorsementDocNumber	Subsidy document number. E.g disability certificate, ID number or other document confirming the status of a large family.		
	endorsementDocDate	Subsidy document issue date.		
	loyaltyPartnerCard	Loyalty partner card number.		
accompanimentBookingInfo		Information about the reservation containing an accompanying passenger		Currently used when creating reservations for MNN, MNS
	number	PNR of a booking containing an accompanying passenger		
	surname	Last name of the accompanying passenger		

Response format

```
{
  "data": {
    "journey": {
      "outboundFlights": [fullReservationFlight],
      "returnFlights": [fullReservationFlight],
      "outboundFareFamily": {
        "code": string,
      },
      "returnFareFamily": {
        "code": string,
      },
          "separateFareFamilies": {
        "code": string,
      },
      "origin": string,
      "destination": string,
      "departureDate": datetime,
      "returnDate": datetime
    },
    "number": string,
    "reservationDate": datetime,
    "passengers": [{
        "id": integer,
        "hasInfant": boolean,
        "referenceNumber": string,
               "relatedAdultReferenceNumber": string,
               "relatedInfantReferenceNumber": string,
               "relatedChildrenReferenceNumbers": [
          "string"
        ],
        "firstName": string,
        "middleName": string,
        "surname": string,
        "passengerType": string,
        "birthDate": datetime,
        "sex": integer,
        "nationality": string,
        "documentNumber": string,
        "documentExpiryDate": datetime,
        "email": string,
        "phone": string,
        "documentType": integer,
        "isAdult": boolean,
        "isChanged": boolean,
        "checkedIn": {
                       couponReference: boolean
               },
               "checkInHasStarted": {
                       couponReference: boolean
               },
        "checkedInSegment": {
            flightReference: boolean
                               },
        "checkInHasStartedSegment": {
            flightReference: boolean
                               },
               "hasPassengersDataErrors": boolean,
        "passengerDataErrors": [{
            "key": string,
            "value": string
        }],
        "endorsements": [{
                        "endorsement": boolean,
                        "isDisability": boolean,
                        "loyaltyPartnerCard": string
                    },
                    {
                        "endorsement": boolean,
                        "isDisability": boolean,
                        "endorsementDocNumber":
string,passengerDataErrors
                                              "endorsementDocDate": datetime
                    }]
           }
    ],
    "outboundBonus": {
        "bonus": "string",
        "replacedBonus": "string"
    },
    "returnBonus": {
        "bonus": "string",
        "replacedBonus": "string"
    },
    "services": [],
    "seats": [],
    "insurance": {},
    "luggageSeats": [{
        "referenceNumber": string,
        "passengerReference": string
        }
    ],
        "partnerProducts": [],
    "ticketFares": [{
        "baseAmount": integer,
        "passengerReferences": [{
            "referenceNumber": string,
            "referenceQualifier": string
        }],
        "passengerType": integer,
        "referenceNumber": string,
        "referenceQualifier": string,
        "totalAmount": integer,
               "currency": string
    }],
    "ticketFaresWithoutZapOff": [{
        "baseAmount": integer,
        "passengerReferences": [{
            "referenceNumber": string,
            "referenceQualifier": string
        }],
        "passengerType": integer,
        "referenceNumber": string,
        "referenceQualifier": string,
        "totalAmount": integer,
               "currency": string
    }],
    "hasSpecialConditions": boolean,
    "isRefundAvailable": boolean,
    "annulUnavailabilityReason": integer,
    "isAnnulAvailable": boolean
},
  "errors": [{
      "ibeCode": string,
      "description": string,
      "messages": [{
          "code": string,
          "text": string
        }
      ]
    }
  ],
  "success": boolean
```

```
}
```

fullReservationFlight object

```
{
    "aircraft": string,
    "aircraftIataCode": string,
    "referenceNumber": string,
    "origin": string,
    "destination": string,
    "departureDate": datetime,
    "arrivalDate": datetime,
    "arrivalDateUtc": datetime,
    "departureDateUtc": datetime,
    "flightNumber": string,
    "classOfService": string,
    "marketingCarrier": string,
    "operatingCarrier": string,
    "flightDuration": string,
    "stopDuration": string,
    "techStops": [{
            "arrivalDateTime": datetime,
            "departureDateTime": datetime,
            "airportCode": string,
            "stopDuration": string,
            "flightDurationUntilNextStop": string
        }
    ],
    "flightDurationUntilNextStop": string,
    "arrivalTerminal": string,
    "departureTerminal": string,
    "hash": string,
    "statuses": [
            string
          ],
    "codeshare": string,
    "codeshareFlightNumber": string
    "isCancelledByAirline": boolean
}
```

Response parameters

Parameter	Description	Notes
success	Sign of the success of the request. If the errors array is empty, then the field value will be true.	

Parameter	**Description**	**Notes**
data	The data returned by the request.	
number	Unique booking number (PNR).	
reservationDate	Date and time of booking creation Format: yyyy-MM-ddTHH:mm:ss Example: 2018-06-20T15:44:00	
passengers	An array of the passengerData objects with passenger information	
outboundBonus	The number of bonuses awarded for a flight “there”	
bonus	Current number of bonuses awarded for the flight	
replacedBonus	Outdated number of bonuses awarded per flight	
returnBonus	The number of bonuses awarded for a return flight	
bonus	Current number of bonuses awarded for the flight	
replacedBonus	Outdated number of bonuses awarded per flight	
services	An array of objects with information about additional services. Filled in when using the api/services service and will be described below	
seats	An array of objects with information about the selected locations. Filled in when using the api/services service and will be described below	
insurance	Object with information about the selected insurance. Filled in when using the api/services service and will be described below	In developing
luggageSeats	An array of objects with information about luggage with separate air ticket and ssr CBBG.	In developing
referenceNumber	The reference to CBBG luggage.	
passengerReference	The reference to passenger who added CBBG luggage. Associated with field data → passengers[n] → referenceNumber.	
partnerProducts	An array of objects with information about partner services. Filled in when using the api/services service and will be described below	

Parameter	Description	Notes
journey	Flight information for current booking	
outboundFlights	An array of the fullReservationFlight objects with details of outbound flights	
outboundFareFamily	Service field, contains the fareFamily code	
returnFlights	An array of fullReservationFlight objects with detailed information about the "return" flights	
returnFareFamily	Service field containing fareFamily code	
separateFlights	An array of fullReservationFlight objects with detailed information about flights without reference to direction	
separateFareFamilies	Service field containing fareFamily code	
origin	Initial airport of departure	
destination	Initial airport of destination	
departureDate	Departure date	
returnDate	Return date	
ticketFares	An array of objects with information about tariffs after applying the discount	
baseAmount	Base rate	
passengerReferences	An array of objects with links to passengers	
referenceNumber	Reference number	
referenceQualifier	Link type, for example "PA"	
passengerType	Passenger type Possible values: see Attachment 2. Passenger types	
referenceNumber	Reference number	
referenceQualifier	Link type, for example "TST"	
totalAmount	The total amount of the tariff	
currency	Reservation currency	
ticketFaresWithoutZapOff	An array of objects with information about tariffs without applying a discount	

Parameter	Description	Notes
baseAmount	Base rate	
passengerReferences	An array of objects with links to passengers	
referenceNumber	Reference number	
referenceQualifier	Link type, for example "PA"	
passengerType	Passenger type Possible values: see Attachment 2. Passenger types	
referenceNumber	Reference number	
referenceQualifier	Link type, for example "TST"	
totalAmount	The total amount of the tariff	
currency	Reservation currency	
hasSpecialConditions	Sign of the additional conditions	
isRefundAvailable	Sign of the availability of the return	
annulUnavailabilityReason	Reason for unavailability of booking cancellation	
isAnnulAvailable	Indication of availability of booking cancellation	
errors	Information about errors that occurred during the operation of the service	
ibeCode	Error code	
description	Error description	
messages	An array of objects containing errors. The array may be empty, it is recommended to analyze the error by the ibeCode field	
code	Error code	
text	Error text	

fullReservationFlight

Parameter	Description	Notes
aircraftIataCode	IATA aircraft code	

Parameter	Description	Notes
referenceNumber	Reference to the current flight segment	
origin	Departure airport for the current segment	
destination	Destination airport for the current segment	
departureDate	Departure date and time for the current segment	
arrivalDate	Arrival date and time for the current segment	
arrivalDateUtc	Date and time of arrival for the current segment in UTC	
departureDateUtc	Departure date and time for the current segment in UTC	
flightNumber	Flight number	
classOfService	Information about the selected tariff	
marketingCarrier	Marketing airline For example: U6, S7	
operatingCarrier	The airline actually performing the flight For example: U6, OK	
techStops	An array with information about technical landings	
arrivalDateTime	Date and time of arrival at the pick-up point	
departureDateTime	Date and time of departure from the pick-up point	
airportCode	Airport code of the stop	
stopDuration	Duration of the stop	
flightDurationUntilNextStop	Duration of the flight to the next stop	

Parameter	**Description**	**Notes**
flightDurationUntilNextStop	Duration of the flight to the next stop	
arrivalTerminal	Terminal number at the point of arrival	
departureTerminal	Terminal number at the point of departure	
hash	Unique hash of the flight	
statuses	Array with information about segment statuses	
codeshare	The full name of the airline that operates the codeshare flight. For example: Czech Airlines for operating Carrier = OK For operatingCarrier = U6, this field is not filled in	
codeshareFlightNumber	The flight number of the airline that operates the codeshare flight.	
isCancelledByAirline	Sign of cancellation of flights by the airline	

passengerData Response object

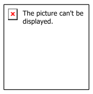
Parameter	**Description**	**Notes**
id	Passenger's serial number (numbered from 1)	
hasInfant	An sign that this passenger has a baby	

Parameter	Description	Notes
relatedAdultReferenceNumber	Reference to the adult passenger in the booking with whom the child or infant flies (it returns only for children and infants)	
relatedInfantReferenceNumber	Reference to the infant passenger in the booking with whom the adult flies (it returns only for adult)	
relatedChildrenReferenceNumbers	An array of links to child passengers which are travelling with an Adult (the array will be received only for an Adult with a children in the same booking)	
referenceNumber	Reference to this passenger in the booking	
firstName	Passenger's name	
middleName	Passenger's patronymic (may be absent)	
surname	Passenger's surname	
passengerType	Passenger type	
isAdult	Whether the passenger is an adult true for ADT/SRC/YTH type passengers false for CHD/INF type passengers	
birthDate	Date of birth	

Parameter	Description	Notes
sex	Passenger gender Possible values: see dictionary "gender of passengers"	
nationality	Nationality (country) Possible values: dictionary of countries	
documentNumber	Document number	
documentType	Document type Possible values: dictionary of document types	
documentExpiryDate	Date until which the document is valid Mandatory only for a foreign passport. For other documents, +10 years from the current date is automatically set	
email	Email	
phone	Phone	
checkedIn	Passenger check-in on flight coupon	
checkedInSegment	Passenger check-in on flights	
checkInHasStarted	Starting check-in on flight coupon	
checkInHasStartedSegment	Starting check-in on flights	
hasPassengersDataErrors	The sign of errors in passengers data.	

Parameter		Description	Notes
passengerDataErrors		Array with detailed information of errors in passengers data.	
	key	The key.	
	value	The value.	
accompanimentBookingsInfo		An array containing information about bookings with accompanying passengers	For MIR, contains information about linked MNN and MNS bookings For MNN, MNS contains information about the booking from the MIR to which the current booking is linked
	number	PNR booking with accompanying passenger	
	surname	Last name of the accompanying passenger	

1. *Creation of one-way booking, direct.*



Take a specific recommendation from the api / flights response: data -> recommendations:

Recommendation:

```
{
   "outboundFlightGroupId": 0,
   "outboundFareFamilyId": 2,
   "outboundFlightGroupHash": "07/16/2022 00:45:00-192-LED-DME",
   "outboundFareFamilyCode": "PR",
   "outboundPrice": 998.00,
   "outboundTaxes": 978.00,
   "outboundSeatsLeft": 9,
   "outboundFareAndAmountDetails": [{
         "bookingCode": "W",
         "fareBasis": "WPROW",
         "isBreakpoint": true,
         "paxType": 0,
         "paxCount": 1,
         "taxAmount": 978.00,
         "totalAmount": 998.00,
         "flightIndex": 0,
         "isSale": false,
         "ruleKey": "U6.BRAND.Y.1.PR"
      }
   ],
   "returnFareAndAmountDetails": [],
   "outboundBaggageAllowances": [{
         "quantity": 1,
         "weight": 0,
         "passengerType": 0
      }
   ],
   "returnBaggageAllowances": [],
   "totalPrice": 998.00,
   "totalDiscount": 0.0,
   "totalBaseFare": 20.00
}
```

Using the outboundFlightGroupId field, determine the flight number that needs to be added and take information on it from the api/flights response, data -> outboundFlights:

```
{
   "flightGroupId": 0,
   "flights": [{
         "flightId": 0,
         "departureAirport": "LED",
         "departureTerminal": "1",
         "arrivalAirport": "DME",
         "departureDateTime": "2022-07-16T00:45:00",
         "arrivalDateTime": "2022-07-16T02:20:00",
         "aircraft": "Airbus A321",
         "aircraftIataCode": "321",
         "flightDuration": "1:35",
         "flightNumber": "192",
         "marketingCarrier": "U6",
         "operatingCarrier": "U6",
         "hash": "07/16/2022 00:45:00-192-LED-DME"
      }
   ],
   "flightGroupDuration": "1:35",
   "hash": "07/16/2022 00:45:00-192-LED-DME"
}
```

Substitute the highlighted values, for the flights array and get:

```
"flights": {
   "outboundFlights": [{
         "origin": "LED",
         "destination": "DME",
         "departureDate": "2022-07-16T00:45:00.000Z",
         "flightNumber": "192",
         "classOfService": "W"
      }
   ],
    "passengersCount": 1
}
```

The classOfService value matches the bookingCode from the recommendation.

The passengersCount value depends on the number of passengers added to the booking.

Using the outboundFareFamilyId field, determine the number of the fare that will need to be added and take information on it from the api/flights response, data -> fareFamilies:

```
{
    "fareFamilyId": 2,
    "code": "PR",
    "category": "ECOLIGHT",
    "isSubsidized": false,
    "options": [...],
    "order": 150,
    "commercialFamily": "U6ECONOMY",
    "canRefund": true,
    "hasUpsale": true,
    "isLowCost": false
}
```

Substitute the highlighted values, for the fares array and get:

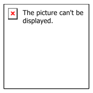
```
"fares": {
    "outboundFareFamily": {
        "category": "ECOLIGHT",
        "code": "PR",
        "isSubsidized": false
    },
    "returnFareFamily": null,
    "fares": [{
            "fareBasis": "WPROW",
            "isBreakpoint": true,
            "passengerType": 0,
            "flightDirection": 0,
```

	"flightIndex": 0 }], "sessionMarker": null }

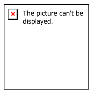
Also need to add valid passenger's data in request.

2. Creation of a booking in both directions, one transfer on the “return” segment.

Direction outbound



Direction return



Recommendation:
 	
{
"outboundFlightGroupId": 0,
"outboundFareFamilyId": 1,
"returnFlightGroupId": 3,
"returnFareFamilyId": 1,
"outboundFlightGroupHash": "2022-07-13 06:30:00-123-LED-AER",
"returnFlightGroupHash": "2022-07-20 08:20:00-524-AER-SVX,2022-07-20 15:30:00-256-SVX-LED",
"outboundFareFamilyCode": "PR",
"returnFareFamilyCode": "PR",
"outboundPrice": 705.00,
"outboundTaxes": 700.00,
"returnPrice": 1331.00,
"returnTaxes": 66.00,
"outboundSeatsLeft": 9,
"returnSeatsLeft": 9,
"outboundFareAndAmountDetails": [{
"bookingCode": "O",
"fareBasis": "OPROW",
"isBreakpoint": true,
"paxType": 0,
"paxCount": 1,
"taxAmount": 700.00,
"totalAmount": 705.00,
"flightIndex": 0,
"isSale": false,
"ruleKey": "U6.BRAND.Y.1.PR"
}
],
"returnFareAndAmountDetails": [{
"bookingCode": "W",
"fareBasis": "WPROW",
"isBreakpoint": true,
"paxType": 0,
"paxCount": 1,
"taxAmount": 0.0,
"totalAmount": 1265.00,
"flightIndex": 0,
"isSale": false,
"ruleKey": "U6.BRAND.Y.1.PR"
}, {
"bookingCode": "N",
	Using the outboundFlightGroupId and returnFlightGroupId fields, we determine the flight numbers and take information on them from the api/flights response, data -> outboundFlights and data -> returnFlights, respectively.
	
	Flight outbound:
	
	{
	"flightGroupId": 0,
	"flights": [{
	"flightId": 0,
	"departureAirport": "LED",
	"departureTerminal": "1",
	"arrivalAirport": "AER",
	"departureDateTime": "2022-07-13T06:30:00",
	"arrivalDateTime": "2022-07-13T11:30:00",
	"aircraft": "Airbus A321",
	"aircraftIataCode": "321",
	"flightDuration": "5:00",
	"flightNumber": "123",
	"marketingCarrier": "U6",
	"operatingCarrier": "U6",
	"hash": "2022-07-13 06:30:00-123-LED-AER"
	}
	],
	"flightGroupDuration": "5:00",
	"hash": "2022-07-13 06:30:00-123-LED-AER"
	}
	
	Flights return:
	
	{
	"flightGroupId": 3,
	"flights": [{
	"flightId": 0,
	"departureAirport": "AER",

```
            "fareBasis": "N",
            "isBreakpoint": true,
            "paxType": 0,
            "paxCount": 1,
            "taxAmount": 66.00,
            "totalAmount": 66.00,
            "flightIndex": 1,
            "isSale": false
        }
    ],
    "outboundBaggageAllowances": [{
            "quantity": 1,
            "weight": 0,
            "passengerType": 0
        }
    ],
    "returnBaggageAllowances": [{
            "quantity": 1,
            "weight": 23,
            "passengerType": 0
        }
    ],
    "totalPrice": 2036.00,
    "totalDiscount": 0.0,
    "totalBaseFare": 1270.00
}
```

```
            "arrivalAirport": "SVX",
            "departureDateTime": "2022-07-20T08:20:00",
            "arrivalDateTime": "2022-07-20T13:50:00",
            "aircraft": "Airbus A320",
            "aircraftIataCode": "320",
            "flightDuration": "3:30",
            "stopDuration": "1:40",
            "flightNumber": "524",
            "marketingCarrier": "U6",
            "operatingCarrier": "U6",
            "hash": "2022-07-20 08:20:00-524-AER-SVX"
        }, {
            "flightId": 1,
            "departureAirport": "SVX",
            "arrivalAirport": "LED",
            "arrivalTerminal": "1",
            "departureDateTime": "2022-07-20T15:30:00",
            "arrivalDateTime": "2022-07-20T16:20:00",
            "aircraft": "Airbus A320",
            "aircraftIataCode": "320",
            "flightDuration": "2:50",
            "flightNumber": "256",
            "marketingCarrier": "U6",
            "operatingCarrier": "U6",
            "hash": "2022-07-20 15:30:00-256-SVX-LED"
        }
    ],
    "flightGroupDuration": "8:00",
    "hash": "2022-07-20 08:20:00-524-AER-SVX,2022-07-20 15:30:00-256-SVX-LED"
}
```

Substitute the highlighted values, for the flights array and get:

```
{

"flights": {
    "outboundFlights": [{
            "origin": "LED",
            "destination": "AER",
            "departureDate": "2022-07-13T06:30:00.000Z",
            "flightNumber": "123",
            "classOfService": "O"
        }
    ],
    "returnFlights": [{
            "origin": "AER",
            "destination": "SVX",
            "departureDate": "2022-07-20T08:20:00.000Z",
            "flightNumber": "524",
            "classOfService": "W"
        }, {
            "origin": "SVX",
            "destination": "LED",
            "departureDate": "2022-07-20T15:30:00.000Z",
            "flightNumber": "256",
            "classOfService": "N"
        }
    ],
    "adults": 1,
    "children": 0,
    "infants": 0,

    "infantsWithSeats": 0,
    "pensioners": 0,
    "youths": 0,
    "unaccompaniedMinors": 0,
    "strAdults": 0,
    "jnnChildren": 0,
    "origin": "LED",
    "jcbYouths": 0,
    "gcfAdults": 0,
    "destination": "AER",
    "passengersCount": 1
}

}
```

The classOfService value matches the bookingCode from the recommendation.

The passengersCount value depends on the number of passengers added to the booking.

Using the outboundFareFamilyId and returnFareFamilyId fields, we determine the fare numbers that need to be added and take information on them from the api/flights response, data -> fareFamilies:

Substitute the highlighted values, for the flights fares and get:

```
"fares": {
   "outboundFareFamily": {
      "category": "ECOLIGHT",
      "code": "PR",
      "isSubsidized": false
   },
   "returnFareFamily": {
      "category": "ECOLIGHT",
      "code": "PR",
      "isSubsidized": false
   },
   "fares": [{
         "fareBasis": "OPROW",
         "isBreakpoint": true,
         "passengerType": 0,
         "flightDirection": 0,
         "flightIndex": 0
      }, {
         "fareBasis": "WPROW",
         "isBreakpoint": true,
         "passengerType": 0,
         "flightDirection": 1,
         "flightIndex": 0
      }, {
         "fareBasis": "N",
         "isBreakpoint": true,
         "passengerType": 0,
         "flightDirection": 1,
         "flightIndex": 1
      }
   ],
```

	"sessionMarker": null } The fareBasis values are taken from the recommendation.

Tariff information should be sent as follows:

```
"fares": {
     "outboundFareFamily": {
         "category":   "SUBSIDIZED",
         "code":   "SUBSIDIZED",
         "isSubsidized":  true

},
     "returnFareFamily": {
         "category":   "ECOLIGHT",
         "code":   "ECOLIGHTRU",
         "isSubsidized":  true

},
     "fares": [
         {
             "fareBasis":   "RBDRTCD",
             "isBreakpoint":  true,
             "passengerType": 1,
             "flightDirection": 0,
             "flightIndex": 0

},
         {
             "fareBasis":   "RBDRTZZ",
             "isBreakpoint":  true,
             "passengerType": 2,
             "flightDirection": 0,
             "flightIndex": 0

},
         {
             "fareBasis":   "RBDRTCH",
             "isBreakpoint":  true,
             "passengerType": 5,
             "flightDirection": 0,
             "flightIndex": 0

},
         {
             "fareBasis":   "EPROW",
             "isBreakpoint":  true,
             "passengerType": 1,
             "flightDirection": 1,
             "flightIndex": 0
},
         {
             "fareBasis":   "EPRRT",
             "isBreakpoint":  true,
             "passengerType": 1,
             "flightDirection": 1,
             "flightIndex": 1

},
         {
             "fareBasis":   "EPROW",
             "isBreakpoint":  true,
             "passengerType": 2,
             "flightDirection": 1,
             "flightIndex": 0

},
         {
             "fareBasis":   "EPRRT",
             "isBreakpoint":  true,
             "passengerType": 2,
             "flightDirection": 1,
             "flightIndex": 1

},
         {
             "fareBasis":   "EPROW",
             "isBreakpoint":  true,
             "passengerType": 5,
             "flightDirection": 1,
             "flightIndex": 0

},
         {
             "fareBasis":   "EPRRT",
             "isBreakpoint":  true,
             "passengerType": 5,
             "flightDirection": 1,
             "flightIndex": 1

}
    ],
     "sessionMarker":  null
}
```

Method GET reservation

Description: allows to get information about a reservation that has already been created.

Request format /api/apiVersion/reservation

Examples of requests

/api/apiVersion/reservation?pnrNumber=AAEW5D&lastName=IVANOV

/api/apiVersion/reservationl?ticketNumber=2622471403682&lastName=PETROV

Request parameters

Parameter	Description	Notes
pnrNumber	PNR number for which information is needed	It can be transmitted both in Latin and in Cyrillic.
ticketNumber	Issued ticket number. The ticket number must be 13 digits, for example: 2622438214047 or 2622438214046.	
lastName	Last name of one of the passengers added to the booking. The parameter is passed in Latin. IBE will return an error if the surname is not in the PNR.	The surname is transmitted in Latin or Cyrillic, depending on how it was indicated when creating the booking.

Note: when requesting information about an order by ticket number, the ticketNumber and lastName fields must refer to the same passenger.

Response format

```
{
  "data": {
    "tickets": [{
        "flightReferences": [
          "string"
        ],
        "number": string,
        "passengerReference": string,
        "isInfantTicket": boolean,
        "issueDate": datetime
       }
    ],
    "outboundFareFamily": fareFamilyObject,
    "returnFareFamily": fareFamilyObject,
        "separateFareFamily": fareFamilyObject,
    "tsmData": [{
        "passengerReference": string,
        "price": number,
        "referenceType": string,
        "referenceNumber": string
      }
    ],
        "outboundBonus": {
      "bonus": "string",
      "replacedBonus": "string"
    },
        "returnBonus": {
      "bonus": "string",
      "replacedBonus": "string"
    },
    "appliedDiscounts": [{
        "flightReference": string,
        "amount": integer,
        "discountAmount": decimal,
        "id": string,
        "type": string,
        "passengerReference": string,
        "serviceCode": string,
        "promoNumber": string,
        "serviceReference": string,
        "usageType": integer,
        "promotionType": integer
      }
    ],
    "baseFarePrices": [{
        "currency": string,
        "flightReferences": [
          "string"
        ],
        "passengerReference": string,
        "isInfantFare": boolean,
        "totalPrice": number,
        "basePrice": number,
                "separatePrice": number,
                "outboundDiscount": integer,
                "returnDiscount": integer,
                "separateDiscount": integer,
        "priceHidden": boolean,
                "taxDetailsInformation": [{
                       "taxCategory": string,
                       "taxDetails": [{
                               "rate": string,
                               "currencyCode": string,
                               "type": string
                                 }
                               ]
                                 }
                               ]
                       }
    ],
    "foodOnBoards": [{
        "departureAirport": string,
        "arrivalAirport": string,
        "flightNumber": string
        "commercialFamily": string,
        "ru": string,
        "en": string,
        "zh": string
    }],
    "reservationRetrieveStatus": integer,
    "ticketCouponStatuses": [{
        "ticketNumber": string,
        "couponStatuses": {
          couponReference: boolean
          },
        "couponStatusesBySegment": {
          flightReference: boolean
          }
    ],
    "engineType": byte,
    "isGroupReservation": bool,
    "spentBonuses": {
     "amount": integer,
     "passengerReference": string
    },
    "spentBonusesByPassengers": [{
      "amount": integer,
      "passengerReference": string
     }
    ],
    "appliedCertificates": [{
      "amount": integer,
      "number": string
     }
    ],
    "originOfficeId": string,
    "originOfficeType": string,
    "journey": {
     "outboundFlights": [fullReservationFlight],
     "outboundFareFamily": {
      "code": string
     },
     "returnFareFamily": {
      "code": string
     },
     "outboundDuration": string,
     "returnFlights": [fullReservationFlight],
     "returnDuration": string,
       "separateFareFamilies": {
          "code": string
      },
     "separateFlights": [fullReservationFlight],
     "separateDuration": string,
     "origin": string,
     "destination": string,
     "departureDate": datetime,
     "returnDate": datetime,
        "outboundBaggageAllowances": [{
            "quantity": integer,
            "weight": integer,
            "passengerType": integer,
                     "fareCode": "string"
          }
        ],
        "returnBaggageAllowances": [{
            "quantity": integer,
            "weight": integer,
            "passengerType": integer,
                                      "fareCode": "string"
                }
            ],
                       "separateBaggageAllowances": [{
                               "quantity": integer,
                               "weight": integer,
                       "passengerType": integer,
                                      "fareCode": "string"
           }
        ],
    },
    "number": string,
    "reservationDate": datetime,
    "passengers": [passengerObject],
    "services": [{
        "code": string,
        "status": string,
        "text": string,
        "petType": string,
        "category": string,
        "passengerReference": string,
        "flightReference": string,
        "referenceNumber": string,
        "packReferenceNumber": string,
        "price": number,
        "issueDate": datetime,
               "issuedByThirdPartyOffice": boolean
       }
    ],
    "seats": [{
        "number": integer,
        "title": string,
        "code": string,
        "status": string,
        "passengerReference": string,
        "flightReference": string,
        "referenceNumber": string,
        "packReferenceNumber": string,
        "issueDate": datetime,
               "issuedByThirdPartyOffice": boolean
       }
    ],
    "insurance": {
      "number": string,
      "code": string,
      "status": string,
      "referenceNumber": string,
      "packReferenceNumber": string,
      "issueDate": datetime,
          "issuedByThirdPartyOffice": boolean
     },
    "partnerProducts": [{
        "partnerId": integer,
        "partnerType": integer,
        "code": string,
        "amount": number,
        "currency": string,
        "passengerReference": string,
        "isInfantProduct": boolean
      }
    ],
    "hasSpecialConditions": boolean
    "errors": [{
        "ibeCode": integer,
        "description": string,
        "messages": [{
            "code": string,
            "text": string
          }
        ],
      }
    ]
    "success": boolean
  }
}
```

fareFamily object

```
{
  "fareFamilyId": integer,
  "code": string,
  "options": [{
      "code": string,
      "category": string,
      "order": integer,
      "showInPopup": boolean,
      "showInSummary": boolean,
      "showInUpsell": boolean,
      "showInFareIncluded": boolean,
      "showForAdult": boolean,
      "showForInfant": boolean,
      "showInBookingCart": boolean
    }
  ],
  "order": integer,
  "commercialFamily": string,
  "canRefund": boolean,
  "hasUpsale": boolean
}
```

fullReservationFlight object

```
{
    "aircraft": string,
    "aircraftIataCode": string,
    "referenceNumber": string,
    "origin": string,
    "destination": string,
    "departureDate": datetime,
    "arrivalDate": datetime,
    "arrivalDateUtc": datetime,
    "departureDateUtc": datetime,
    "flightNumber": string,
    "classOfService": string,
    "marketingCarrier": string,
    "operatingCarrier": string,
    "flightDuration": string,
    "stopDuration": string,
    "techStops": [{
            "arrivalDateTime": datetime,
            "departureDateTime": datetime,
            "airportCode": string,
            "stopDuration": string,
            "flightDurationUntilNextStop": string
        }
    ],
    "flightDurationUntilNextStop": string,
    "arrivalTerminal": string,
    "departureTerminal": string,
    "hash": string,
    "statuses": [
            string
          ],
    "codeshare": string,
    "codeshareFlightNumber": string
    "isCancelledByAirline": boolean
}
```

passenger object

```
{
  "id": integer,
  "hasInfant": boolean,
  "referenceNumber": string,
  "relatedAdultReferenceNumber": string,
  "relatedInfantReferenceNumber": string,
  "relatedChildrenReferenceNumbers": [
     "string"
   ],
  "firstName": string,
  "middleName": string,
  "surname": string,
  "passengerType": integer,
  "isAdult": boolean,
  "birthDate": datetime,
  "sex": integer,
  "nationality": string,
  "documentNumber": string,
  "documentExpiryDate": datetime,
  "email": string,
  "phone": string,
  "documentType": integer,
  "accompanimentBookingsInfo":[
               {
                       "number": string,
                       "surname": string
               }
        ]
}
```

Response options

Parameter			Description	Notes
success			Sign of the success of the request. If the errors array is empty, then the field value will be true	
data			The data returned by the request	
	tickets		Information about issued tickets	
		flightReferences	Flight segment	
		number	Ticket number. **Example**: 262 2439494143	
		passengerReference	A reference to the passenger to whom this ticket belongs.	
		isInfantTicket	An sign that this passenger has a baby	
		issueDate	Date and time of issuing the tickets.	
	outboundFareFamily		An array of farFamily objects with information about the selected fares for the “outbound” flight	

Parameter			**Description**	**Notes**
	returnFareFamily		An array of farFamily objects with information about the selected fares for the "return" flight	
	separateFareFamilies		Service field with information about the selected fare for a flight without reference to a segment	
	tsmData		An array of objects with information about additional services added to PNR	
		passengerReference	Reference to the passenger to whom this service relates	
		price	Service cost	
		referenceType	The type of reference to the entry in the PNR, usually "SSR"	
		referenceNumber	SSR number. Each service has a unique SSR number in the PNR	
	outboundBonus		Bonuses for flying there	
		bonus	Current number of bonuses awarded for the flight	
		replacedBonus	Outdated number of bonuses awarded per flight	
	returnBonus		Bonuses for return flights	
		bonus	Current number of bonuses awarded for the flight	
		replacedBonus	Outdated number of bonuses awarded per flight	
	appliedDiscounts		Discounts applied in this PNR.	
		flightReference	Reference to the segment for which the discount was applied	

Parameter			**Description**	**Notes**
		amount	Discount rate as a percentage	
		discountAmount	The absolute value of the discount in rubles	
		id	ID of the campaign in CRM for which the discount was applied	
		type	Discount type. Possible values: DISCOUNT - regular discount, PROMO - discount on the flight promo code. PROMOCODE - discount for additional services with a promotional code.	
		passengerReference	Reference to the passenger for whom the discount was applied.	
		serviceCode	The code of the added service for which the discount was applied.	
		promoNumber	The number of the applied promotional code from CRM.	
		serviceReference	Service identifier within the current booking.	
		usageType	Discount type: on tariff or on order	
		promotionType	Type of promo code: for a flight or for a service	
	baseFarePrices		An array with information about base prices for tariffs.	
		currency	The currency in which the value is presented. Example value: RUB	

Parameter					Description	Notes
		flightReferences			Flight segment	
		passengerReference			Reference to the passenger for whom the cost is determined.	
		isInfantFare			The sign if the passenger is an infant	
		totalPrice			Total price	
		basePrice			Base price (excluding tariffs and fees)	
		separatePrice			Price per segment without direction	
		outboundDiscount			An amount of discount for "There" route	
		returnDiscount			An amount of discount for "From" route	
		separateDiscount			The amount of discount applied to segments without direction	
		priceHidden			The sign if the rate amount should be hidden for the client. Will be "true" for IT-tariffs.	
		taxDetailsInformation			Services information about tariffs and fees.	
			taxCategory		Tax category	
			taxDetails		Array of objects with information about tariffs and fees details.	
				rate	Tariff/fee sum	
				currencyCode	Currency code	
				type	Tariff/fee type	
	foodOnBoards				An array with information about meals available on flights	
		departureAirport			Departure airport	

Parameter			Description	Notes
		arrivalAirport	Arrival airport	
		flightNumber	Flight number	
		commercialFamily	Fare family type (different meals may be available on the same flight for economy and business).	
		ru	Translation of the option into Russian	
		en	Translation of the option into Englishкий язык	
		zh	Translation of the option into Chinese	
	reservationRetrieveStatus		Reservation receipt status. Can take values: 0 - Ok (success) 1 - TicketRequired (group booking, the passenger did not indicate the ticket number) 2 - InvalidTicketNumber (group booking, the passenger indicated an incorrect ticket number)	
	ticketCouponStatuses		Array of information about statuses of flight coupons.	
		ticketNumber	Ticket number.	
		couponStatuses	Statuses of flight coupons.	
		couponStatusesBySegment	Statuses of flight coupons for flight segments.	

Parameter			Description	Notes
	engineType		The system in which the reservation was created. Can take values: 0 - Unknown, 2 - Tais, 4 - Sirena	
	isGroupReservation		Group booking flag	
	spentBonuses		Object with information about the total count of bonuses spent	
		amount	Count of bonuses	
		passengerReference	Reference to the first passenger	
	spentBonusesByPassengers		An array with information about the number of bonuses spent by a specific passenger	
		amount	Count of bonuses	
		passengerReference	Reference to the passenger	
	appliedCertificates		An array with information about applied certificates	
		amount	Certificate denomination	
		number	Certificate number	
	originOfficeId		The office under which the reservation was created. For example, SVXU608AZ	
	originOfficeType		The type of office under which the reservation was created. Possible values: dictionary of offices	

Parameter			**Description**	**Notes**
	journey		Flight information for this booking	
		outboundFlights	An array of fullReservationFlight objects with details of "outbound" flights	
		outboundFareFamily	Service field with information about the selected fare for the “outbound” flight. For example, ECOFLEXRU	
		returnFareFamily	Service field with information about the selected fare for the "return" flight	
		outboundDuration	Total duration of the "outbound" flight	
		returnFlights	An array of fullReservationFlight objects with detailed information about the "return" flights	
		returnDuration	Total duration of the "return" flight	
		separateFareFamilies	Service field with information about the selected fare for a flight without reference to a segment	
		separateFlights	An array of fullReservationFlight objects with detailed information about flights without reference to a segment	
		separateDuration	Total flight duration without reference to segment	
		origin	Initial airport of departure	
		destination	Initial airport of arrival	
		departureDate	Departure date	
		returnDate	Return date	

Parameter			**Description**	**Notes**
		outboundBaggageAllowances	An array of objects containing detailed information about baggage allowances for the “outbound” route	
		returnBaggageAllowances	An array of objects containing detailed information about baggage allowances for the “return” route	
		separateBaggageAllowances	An array of objects containing detailed information about baggage allowances for segments not tied to a destination	
		containsInternationalFlights	A sign of one airports of booking isn't in Russia	
	number		Number of PNR	
	reservationDate		Date and time of booking creation	
	passengers		An array of passengerData objects with passenger information	
	services		Array of objects with information about additional services added to the booking	
		code	Additional service code Possible values: dictionary of additional codes services	
		status	Service adding status. Example: HK - service added successfully	
		text	Text in ssr format for sending pet information. Example: DOG 1PC 8KG 45X35X25	

Parameter			Description	Notes
		petType	Pet type Possible values: DOG, CAT, PARROT, CANARY	
		category	Additional service category Possible values: dictionary of additional service codes	
		passengerReference	Reference to the passenger for which the additional service has been added	
		packReferenceNumber	Reference to the service package in which the service was added	
		flightReference	Reference to the segment on which the service operates	
		referenceNumber	SSR number. Each service has a unique SSR number in the PNR.	
		price	Additional service cost	
		issueDate	Date and time of issuing the service.	
		issuedByThirdPartyOffice	A sign that the service was issued by a third-party office in relation to the office under which the booking was issued.	
	seats		An array of objects with information about the places added to the booking	
		number	The row on which the seat is selected	
		title	Place	
		code	Seat selection service code. Value: RQST	

Parameter			Description	Notes
		status	Service adding status. Example: HK - service added successfully	
		passengerReference	Reference to the passenger for whom the additional service has been added	
		flightReference	Reference to the segment on which the service operates	
		referenceNumber	SSR number. Each service has a unique SSR number in the PNR.	
		packReferenceNumber	Reference to the service package in which the location was added	
		issueDate	Date and time of issuing the service.	
		issuedByThirdPartyOffice	A sign that the service was issued by a third-party office in relation to the office under which the booking was issued.	
	insurance		Object with information about the insurance added to the booking	In developing
		number	Insurance document number	
		code	Insurance code Possible values: dictionary of additional services (category insurance)	
		status	Service adding status. Example: HK - service added successfully	
		referenceNumber	SSR number. Each service has a unique SSR number in the PNR.	

Parameter			Description	Notes
		packReferenceNumber	Reference to the service package in which the service was added	
		issueDate	Date and time of issuing the service.	
		issuedByThirdPartyOffice	A sign that the service was issued by a third-party office in relation to the office under which the booking was issued.	
	partnerProducts		Array of objects with information about the partner services added to the booking	
		partnerId	Unique ID of the partner in the IBE engine.	
		partnerType	Unique code of partner's type	
		code	Partner service code. Each partner has unique service codes. See the codes for partner services in Attachment 5.	
		amount	Partner's service cost.	
		currency	Tariffication currency	
		passengerReference	Reference to the passenger for whom the service has been added	
		isInfantProduct	The sign of service for infant	
	hasSpecialConditions		The sign if one of the following services has been added to the booking : PETC, CBBG, WEAP, UMNR, MAAS, MEDA, EXST, STCR, WCHR, WCHC, WCHS, WCBD, WCBW, WCMP, WCOB, DEAF, BLND, DEPA, DEPU	

Parameter			**Description**	**Notes**
errors			Information about errors that occurred during the operation of the service	
	ibeCode		Error code	
	description		Error description	
	messages		An array of objects containing errors. The array may be empty, it is recommended to analyze the error by the ibeCode field	
		code	Error code	
		text	Error text	

fareFamily

Parameter	**Description**
fareFamilyId	Serial number of the tariff family, used in recommendations.
code	Family code, for example: ECOLIGHT/ECOFLEX/ECOPREM and etc. Possible values: see the dictionary of the main tariff categories
order	Fare family display order
commercialFamily	Fare family type, for example: U6ECONOMY or U6BUSINESS
canRefund	The sign if the tariff is refundable
hasUpsale	The sign shows whether the given tariff can be "increased" to the next one in the price category.
options	Array of objects with information about tariff options. Used for the website of the booking engine.

Parameter		Description
	code	Tariff option code For example: upTo5bonuses refundExchangeProhibited mealsOnBoard and etc. Used for the website of the booking engine.
	category	Category code for option For example: bonus, ffServices and etc. Used for the website of the booking engine.
	order	Order for option output
	showInPopup	Whether to show an option in the "your options" pop-up window.
	showInSummary	Whether to show the option on the Summary page.
	showInUpsell	Whether to show the option in the information about the tariff increase.
	showInFareIncluded	Whether to show an option when selecting a filter.
	showForAdult	Whether to show an option for an adult passenger.
	showForInfant	Whether to show an option for a baby.
	showInBookingCart	Whether to show an option in the shopping cart.

fullReservationFlight

Parameter	Description	Notes
aircraftIataCode	IATA aircraft code	
referenceNumber	Reference to the current flight segment	

Parameter	Description	Notes
origin	Departure airport for the current segment	
destination	Destination airport for the current segment	
departureDate	Departure date and time for the current segment	
arrivalDate	Arrival date and time for the current segment	
arrivalDateUtc	Date and time of arrival for the current segment in UTC	
departureDateUtc	Departure date and time for the current segment in UTC	
flightNumber	Flight number	
classOfService	Information about the selected tariff	
marketingCarrier	Marketing airline For example: U6, S7	
operatingCarrier	The airline actually performing the flight For example: U6, OK	
techStops	An array with information about technical landings	
arrivalDateTime	Date and time of arrival at the pick-up point	
departureDateTime	Date and time of departure from the pick-up point	
airportCode	Airport code of the stop	
stopDuration	Duration of the stop	
flightDurationUntilNextStop	Duration of the flight to the next stop	
flightDurationUntilNextStop	Duration of the flight to the next stop	

Parameter	**Description**	**Notes**
arrivalTerminal	Terminal number at the point of arrival	
departureTerminal	Terminal number at the point of departure	
hash	Unique hash of the flight	
statuses	Array with information about segment statuses	
codeshare	The full name of the airline that operates the codeshare flight. For example: Czech Airlines for operating Carrier = OK For operatingCarrier = U6, this field is not filled in	
codeshareFlightNumber	The flight number of the airline that operates the codeshare flight.	
isCancelledByAirline	Sign of cancellation of flights by the airline	

outboundBaggageAllowances, returnBaggageAllowances, separateBaggageAllowances

Parameter	**Description**
quantity	count of baggage
weight	weight of baggage
passengerType	passenger type
fareCode	fare family for which baggage is returned

passengerData

Parameter	Description	Note
id	Passenger's serial number (numbered from 1)	
hasInfant	An indication that this passenger has a baby	
referenceNumber	Reference to this passenger in the booking	
relatedAdultReferenceNumber	Reference to the adult passenger in the booking with whom the child or infant flies (it returns only for children and infants)	
relatedInfantReferenceNumber	Reference to the infant passenger in the booking with whom the adult flies (it returns only for adult)	
relatedChildrenReferenceNumbers	An array of links to child passengers which are travelling with an Adult (the array will be received only for an Adult with a children in the same booking)	
firstName	Passenger's name	
middleName	Passenger's patronymic (may be absent)	
surname	Passenger's surname	
passengerType	Passenger type. Possible values: dictionary of passenger types	
isAdult	The sign if the passenger is an adult true for passengers type ADT/SRC/YTH false for passengers type CHD/INF	
birthDate	Date of birth	

Parameter	**Description**	**Note**
sex	Passenger gender Possible values: dictionary gender of passengers	
nationality	Nationality (country) Possible values: dictionary of countries	
documentNumber	Masked number of document of passenger. **Format:** • passport: 53X67, • birth certificate: VIX43.	
documentType	Document type Possible values: dictionary of document types	
documentExpiryDate	Date until which the document is valid Mandatory only for a foreign passport. For other documents, +10 years from the current date is automatically set	
loyaltyCard	Loyalty card number "Wings"	
email	Email	
phone	Phone	

Parameter		Description	Note
accompanimentBookingsInfo		An array containing information about bookings with accompanying passengers	For MIR, contains information about linked MNN and MNS bookings For MNN, MNS contains information about the booking from the MIR to which the current booking is linked
	number	PNR booking with accompanying passenger	
	surname	Last name of the accompanying passenger	

Method DELETE reservation

Description: the method allows to delete created unpaid reservation, after successful deletion of booking, all flight segments in the response of GET api/reservation in journey array have status XX.

Request format /api/apiVersion/reservation

Request parameters

None. Cancellation reservations are identified by the session ID passed in the X-Session header.

Response format

```
{
  "errors": [{
      "ibeCode": integer,
      "description": string,
      "messages": [{
          "code": string,
          "text": string
        }
      ],
    }
  ]
  "success": boolean
}
```

Response parameters

Parameter			Description
success			Sign of the success of the request. If the errors array is empty, then the field value will be true
errors			Information about errors that occurred during the operation of the service.
	ibeCode		Error code, see Attachment 1. IBE error codes
	description		Error description, see Attachment 1. IBE error codes
	messages		An array of objects containing errors from Sirena answer. The array may be empty, it is recommended to analyze the error by the ibeCode field
		code	Sirena error code
		text	Sirena error text

Examples of unsuccessful requests and responses

An attempt to delete if the booking information was not loaded into the context.

```
{
    "errors": [
        {
            "ibeCode": 1001,
            "description": "Operation can not be performed due to invalid
reservation state.",
            "messages": []
        }
    ],
    "success": false
}
```

Booking management service v2.3

Changes in v 2.3:

In GET reservation service's response insurance object was replaced with insurances array.

Response format

```
{
  "data": {
    "journey": {
      "outboundFlights": [fullReservationFlight],
      "outboundFareFamily": {
        "code": string
      },
      "outboundDuration": string,
      "returnFlights": [fullReservationFlight],
      "returnDuration": string,
      "origin": string,
      "destination": string,
      "departureDate": datetime,
      "returnDate": datetime
    },
          "baseFarePricesBySegment": [
      {
        "flightReference": string,
        "passengerReference": string,
        "totalPrice": string,
        "basePrice": string,
        "discountAmount": string,
        "passengerType": integer
      }
    ],
    "fareBasisCodesFlightRefs" :{[fareBasisCodesFlightRefs object]},
    "number": string,
    "reservationDate": datetime,
    "bookingTimeLimit": datetime,
    "passengers": [{
        "id": integer,
        "hasInfant": boolean,
        "referenceNumber": string,
               "relatedAdultReferenceNumber": string,
               "relatedInfantReferenceNumber": string,
               "relatedChildrenReferenceNumbers": [
          "string"
        ],
        "firstName": string,
        "middleName": string,
        "surname": string,
        "passengerType": integer,
        "isAdult": boolean,
        "birthDate": datetime,
        "sex": integer,
        "nationality": string,
        "documentNumber": string,
        "documentExpiryDate": datetime,
        "email": string,
        "phone": string,
        "documentType": integer
      }
    ],
    "services": array,
    "seats": array,
    "insurances": [{
        "number": string,
        "passengerType": integer,
        "code": string,
        "status": string,
        "passengerReference": string,
        "price": double
      }
    ],
    "isAgentReservation": boolean,
    "isPayForbiddenForAgency": boolean,
    "partnerProducts": array,
        "flightsWithOpenDateCount": integer
  },
  "errors": [{
      "ibeCode": integer,
      "description": string,
      "messages": [{
          "code": string,
          "text": string
        }
      ],
      "success": boolean
    }
  ]
}
```

fullReservationFlight object

```
{
    "aircraft": string,
    "aircraftIataCode": string,
    "referenceNumber": string,
    "origin": string,
    "destination": string,
    "departureDate": datetime,
    "arrivalDate": datetime,
    "arrivalDateUtc": datetime,
    "departureDateUtc": datetime,
    "flightNumber": string,
    "classOfService": string,
    "marketingCarrier": string,
    "operatingCarrier": string,
    "flightDuration": string,
    "stopDuration": string,
    "techStops": [{
            "arrivalDateTime": datetime,
            "departureDateTime": datetime,
            "airportCode": string,
            "stopDuration": string,
            "flightDurationUntilNextStop": string
        }
    ],
    "flightDurationUntilNextStop": string,
    "arrivalTerminal": string,
    "departureTerminal": string,
    "hash": string,
    "statuses": [
            string
          ],
    "codeshare": string,
    "codeshareFlightNumber": string
    "isCancelledByAirline": boolean
}
```

fareBasisCodesFlightRefs object

```
{
  "fareBasis": string,
  "flightReferenceNumber": string,
  "passengerReferenceNumber": string,
  "expirationUtc": datetime
}
```

Response parameters (short format)

Parameter	Description	Notes
success	Sign of query execution success. If errors array is empty, field value will be set to true	
data	Returned data	
isGroupReservation	IT/BT reservation sign	In developing
isCompanyGroupReservation	Group booking sign	In developing
number	PNR number	
reservationDate	Booking creation date and time	
bookingTimeLimit	Date and time until which the unpaid booking will exist (rules are set in the settings in IBE)	
passengers	Array of passengerData objects with information about passengers	
services	Array of objects with information about auxiliary services.	
seats	Array of objects with information about selected seats.	
insurances	Array of objects with information about selected insurances.	In developing
partnerProducts	Array of objects with information about partner's services.	
journey	Information about flights for present booking.	
isAgentReservation	Agent booking sign to disable the booking management module	

	flightsWithOpenDateCount	Number of flights with open dates	
	isPayForbiddenForAgency	Sign that payment is not available for an unpaid booking	
	baseFarePricesBySegment	An array of object with information about base fare prices by segments of flights	
	fareBasisCodesFlightRefs	Array of objects with fare basis info	
errors		Information about errors appeared during query execution.	

insurances structure description

Parameter	Description
number	Insurance document number
passengerType	Passenger type
code	Service code. Example: "URFL"
status	Service status, Example: "HK"
passengerReference	Reference to passenger to whom present service is provided
price	Service price

Method POST api/Reservation

Description: booking creating, adding an information of flights, passengers, fares.

Request format: /api/apiVersion/Reservation

Request body

It has totally the same realisation as for post api/Reservation v2.2

Response format

It has the same realisation for post api/Reservation v2.2. A **data** object is extended by the baseFarePricesBySegment [] array and InformationalServices[] array.

baseFarePricesBySegment

```
{
  "data": {
        "isGroupReservation": boolean,
        "isCompanyGroupReservation": boolean,
"journey": {
  "outboundFlights": [fullReservationFlight],
  "outboundFareFamily": {
    "code": string
  },
  "outboundDuration": string,
  "returnFlights": [fullReservationFlight],
  "returnDuration": string,
  "origin": string,
  "destination": string,
  "departureDate": datetime,
  "returnDate": datetime
},
      "baseFarePricesBySegment": [
  {
    "flightReference": string,
    "passengerReference": string,
    "totalPrice": string,
    "basePrice": string,
    "discountAmount": string,
    "passengerType": integer
  }
],
    "fareBasisCodesFlightRefs" :{[fareBasisCodesFlightRefs object]},
"number": string,
"reservationDate": datetime,
    "bookingTimeLimit": datetime,
"passengers": [{
    "id": integer,
    "hasInfant": boolean,
    "referenceNumber": string,
           "relatedAdultReferenceNumber": string,
           "relatedInfantReferenceNumber": string,
           "relatedChildrenReferenceNumbers": [
      "string"
    ],
    "firstName": string,
    "middleName": string,
    "surname": string,
    "passengerType": integer,
    "isAdult": boolean,
    "birthDate": datetime,
    "sex": integer,
    "nationality": string,
    "documentNumber": string,
    "documentExpiryDate": datetime,
    "email": string,
    "phone": string,
    "documentType": integer
  }
],
"services": array,
"seats": array,
"insurances": [{
    "number": string,
    "passengerType": integer,
    "code": string,
        "status": string,
               "passengerReference": string,
               "price": double
      }
    ],
    "isAgentReservation": boolean,
        "isPayForbiddenForAgency": boolean,
    "partnerProducts": array,
        "flightsWithOpenDateCount": integer
  },
  "errors": [{
      "ibeCode": integer,
      "description": string,
      "messages": [{
          "code": string,
          "text": string
        }
      ],
      "success": boolean
    }
  ]
}
```

Response parameters (at the shot form, only extention)

Parameter	Description	Notes
data	A data which were received by the request	
baseFarePricesBySegment	An array of object with information about base fare prices by segments of flights	

InformationalServices

```
     {
       "code": string,
       "status": string,
       "text": string,
       "petType": string,
       "category": string,
       "passengerReference": string,
       "flightReference": string,
       "referenceNumber": string,
       "price": number,
       "issueDate": datetime,
       "issuedByThirdPartyOffice": boolean
      }
```

Response parameters

Parameter	**Description**	**Notes**
code	Additional service code Possible values: reference codes of the add. services	
status	The status of adding the service. Example: HD service successfully added	
text	Text in ssr format for sending information. Example: DOG 1PC 8KG 45X35X25	
petType	Type of pet. Possible values: DOG, CAT, PARROT, CANARY	
category	Category of additional service Possible values: Reference codes add. services	
passengerReference	Link to the passenger for whom an additional service has been added	
flightReference	Link to the segment on which the service operates	
referenceNumber	Номер SSR. Каждой услуге соответствует уникальный номер SSR в PNR.	
price	The cost of an additional service	
issueDate	Date and time of service release.	
issuedByThirdPartyOffice	A sign that the service was issued by a third-party office in relation to the office under which the booking was issued	

Auxiliary services management service: api/services, api/catalogue

Auxiliary services management service v2.2

API Service	catalogue / services
Short description	Services allows to retrieve information about auxiliary services and add them to PNR.
Supported HTTP(S)-methods	GET, POST
Conterminous systems methods used	**Sirena:** svc_prices, svc_add **CRM:** getContactMarkup, EmdPromoCode

GET catalogue method

Description: Obtaining of information about auxiliary services available for adding to booking.

Request format /api/apiVersion/catalogue

Request parameters

Parameter	Description
currency	Current that is used for pricing services

Response format

```
{
  "data": {
    "services": [{
        "code": string,
        "flightReferences": [{
            "referenceNumber": string,
            "passengerPrices": [{
                "referenceNumber": string,
                "amount": number
              }
            ]
          }
        ]
      }
    ],
     "packs": [{
            "includedSeats": [string],
            "excludedSeats": [string],
            "includedServiceCode": string,
            "code": string,
        "flightReferences": [{
                "referenceNumber": string,
                "passengerPrices": [{
                    "referenceNumber": string,
                    "amount": decimal
                    }]
                }]
        }],
"seatServices": [{
"seatCharacteristics": [string],
    "code": string,
    "flightReferences": [{
        "referenceNumber": string,
        "passengerPrices": [{
            "referenceNumber": string,
            "amount": number
          }
        ]
      }
    ]
  }
],
"petsServiceConfiguration": [{
    "petsList": [string],
    "flightReferences": [string]
  }
],
"partnerProducts": [{
    "partnerId": integer,
    "partnerType": integer,
    "code": string,
    "amount": number,
    "currency": string,
           "bookingStatus": integer,
    "passengerReference": string,
    "isInfantProduct": boolean,
    "bookingId": string,
    "internalError": integer,
    "internalErrorMessage": string
  }
],
"portions": [{
    "type": string,
    "number": string,
    "flightReferenceNumbers": [string]
  }
],
"serviceCategories": [{
    "code": string,
    "category": string,
        "subCategory": string,
    "order": integer,
    "fullDirection": boolean,
    "onlyForRussianCitizens": true
   }
],
    "serviceOptions": [{
```

```
                "code": string,
                "preselect": boolean,
                "category": string,
                "priority": integer,
                "flightReferences": [string],
                "passengerReferences": [string]
          }
    ],
        "crmEmdPromoCodes": [{
        "serviceType": string,
        "promo": string,
        "promoDescription": string,
        "discountLevel": integer,
        "expireDate": datetime
      }
    ]
    "moneyWallCoefficient": string
  },
  "errors": [{
      "ibeCode": integer,
      "description": string,
      "messages": [{
          "code": string,
          "text": string,
          "additionalInfo": {
                "ssrType": string,
                "info": string
                 }
           }
      ]
    }
  ],
  "success": boolean
}
```

Response parameters

Parameter	Description	Note
success	Sign of query execution success. If errors array is empty, field value will be set to true	
data	Returned data	
services	Array of objects with information about airline's available services	

code	Service code Possible values	
flightReferences	Array of objects with information about segments and passengers to whom services are available as well as service's prices	
referenceNumber	Reference to flight segment	
passengerPrices	Array of objects with information about passenger and service price	
referenceNumber	Reference to passenger	
amount	Price of service	
packs	An array with available service packages	In developing
includedSeats	An array of characteristics of available seats within the service package	
excludedSeats	An array of characteristics of unavailable places within the service package	
includedServiceCode	Included service code	
code	Service package code. Possible values: Attachment 2. Dictionary of service packages	
flightReferences	The arrays with information about the position and passengers, which services are available, as well as the cost of these services.	
referenceNumber	Flight segment reference	
passengerPrices	An array of objects with information about the passenger and the cost of the service	
referenceNumber	Reference to a specific passenger	
amount	Service cost for a specific passenger	
serviceOptions	Array of objects with information about which services should be automatically pre-selected in IBE frontend.	
category	Service category	

		code			Service code Possible values	
		flightReferences			Array of objects with information about segments on which services are available	
		preselect			If true, service should be automatically pre-selected in UI. *Note: Initial logic was applied to Web-client usage*	
		priority			Priority of automatic service selection, 0 - highest. For instance, if service with priority 0 is unavailable, then service with priority 1 will be added etc.	
		passengerReferences			Array of objects with information about references to passengers for which the service is preselected.	
	seatServices				Array of objects with information about flight's seats available for selection **IMPORTANT:** api/seatmap service returns more detailed information about available seats and should be used for "seat selection" service booking.	In developing
		code			Service code, SEAT	
		flightReferences			Array of objects with information about segments and passengers to whom services are available as well as service's prices	
			referenceNumber		reference to flight segment	
			passengerPrices		Array of objects with information about passenger and service price	
				referenceNumber	Reference to passenger	
				amount	Price of service	
	petsServiceConfiguration				Array of objects with information about "pet transportation" service availability on different segments. Needed for pet transportation validation on "business" family fares.	
		petsList			Array of strings, containing list of pet types available for transportation	

		flightReferences	Array of strings, containing list of segments on which service is available	
	serviceCategories		Array of objects with information about services and order of its display in website	
		code	Service code	
		category	Service category	
		order	Display index in auxiliary services page. 1 - page top (A deprecated option that is no longer used. The order of arrangement of additional services is determined on the side of the booking engine)	
		fullDirection	Service for directions	
		onlyForRussianCitizens	Service only for russian citizens	
	partnerProducts		Array of objects with information about partners services	
		partnerId	Partners unique ID in IBE. Alfastrakh – 1, Sealine insurance – 2, Aeroexpress – 4	
		partnerType	Partner type Insurance – 1, Aeroexpress – 2	
		code	Partner's service code. Each partner has its own unique set of codes.	
		amount	Partner's service cost.	
		currency	currency	

		bookingStatus	Partner's service booking status Possible values: 0 - unknown, 1 - service is not issued, 2 - service is issued, 3 - error issuing of service, 4 - refund performed	
	portions		Service field	In developing
		type	Service field	
		number	Service field	
		flightReferenceNumbers	Service field	
errors			Information about errors appeared during query execution.	
	ibeCode		Error code	
	description		Code description	
	messages		Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode	
		code	Sirena error code	
		text	Sirena error text	

POST services method

Description: allows you to add services to the booking.

Request format: /api/apiVersion/services

Request body:

```
{
  "seats": [{
      "number": integer,
      "title": string,
      "code": string,
      "text": string,
      "passengerReference": string,
      "flightReference": string,
      "referenceNumber": "string"
    }
  ],
  "services": [{
      "code": string,
      "text": string,
      "passengerReference": string,
      "flightReference": string,
      "referenceNumber": string
    }
  ],
  "currency": string
}
```

Request parameters:

Parameters	Description
services	Array of objects with information about added services
code	Additional service code
text	Animal type
passengerReference	Passenger reference
flightReference	Flight reference
referenceNumber	Paid services reference
seats	Array of objects with information about added seats
number	Row number of selected seat
title	Seat
code	Seat code
text	Text
referenceNumber	Paid seat reference
passengerReference	Passenger reference
flightReference	Flight reference
currency	Currency

Examples of requests with the services of the Airline

Add one extra baggage

```
{
    "seats": [],
    "services": [
        {
            "code": "ABAG",
            "passengerReference": "12",
            "flightReference": "12"
        }
    ],
        "currency": "RUB"
}
```

Add seat

```
{
    "seats": [
        {
            "number": 7,
            "title": "A",
            "passengerReference": "12",
            "flightReference": "12"
        }
    ],
    "services": [],
        "currency": "RUB"
}
```

Add pet

```
{
    "seats": [],
    "services": [
        {
            "code": "PETC",
            "text": "DOG",
            "passengerReference": "12",
            "flightReference": "12"
        }
    ],
        "currency": "RUB"
}
```

Logic of adding/removing services to a booking

IBE always updates the booking for additional services based on the parameters in the request.

Example:

Add baggage

```
{
  "seats": [],
  "services": [{
      "code": "ABAG",
      "passengerReference": "12",
      "flightReference": "12"
    }
  ],
  "currency": "RUB"
}
```

To remove baggage from a booking, send the following request

```
{
  "seats": [],
  "services": [],
  "currency": "RUB"
}
```

This logic is implemented for all types of services

Response format

The format of the response in terms of adding services is the same as the response of the GET api/reservation method.

Service for obtaining information about additional services v2.3

Changes in GET method response api/catalogue version 2.3:

Version 2.2	Version 2.3
In the services.flightReferences.referenceNumber array of type string changed to services.flightReferences.referenceNumbers array of type string.	

"services": [{
        "code": string,
        "flightReferences": [{
                "referenceNumber":
string,
                "passengerPrices": [{
 	
"referenceNumber": string,
                        "amount":
number
                    }
                ]
            }
        ]
    }
]
	"services": [{
	        "code": string,
	        "flightReferences": [{
	                "referenceNumbers":
	[string],
	                "passengerPrices": [{
	
	"referenceNumber": string,
	                        "amount":
	number
	                    }
	                ]
	            }
	        ]
	    }
	]

In the packs.flightReferences.referenceNumber array of type string changed to packs.flightReferences.referenceNumbers array of type string.	

"packs": [{
        "includedSeats": [string],
        "excludedSeats": [string],
        "includedServiceCode":
string,
        "code": string,
        "flightReferences": [{
                "referenceNumber":
string,
                "passengerPrices": [{
 	
"referenceNumber": string,
                        "amount":
number
                    }
                ]
            }
        ]
    }
]
	"packs": [{
	        "includedSeats": [string],
	        "excludedSeats": [string],
	        "includedServiceCode":
	string,
	        "code": string,
	        "flightReferences": [{
	                "referenceNumbers":
	[string],
	                "passengerPrices": [{
	
	"referenceNumber": string,
	                        "amount":
	number
	                    }
	                ]
	            }
	        ]
	    }
	]

Changed the seatServices.flightReferences.referenceNumber array of type string to seatServices.flightReferences.referenceNumbers array of type string.	

<table>
<tr><td>"seatServices": [{
        "seatCharacteristics":
[string],
        "code": string,
        "flightReferences": [{
                "referenceNumber":
string,
                "passengerPrices": [{

"referenceNumber": string,
                        "amount":
number
                    }
                ]
            }
        ]
    }
]</td><td>"seatServices": [{
        "seatCharacteristics":
[string],
        "code": string,
        "flightReferences": [{
                "referenceNumbers":
[string],
                "passengerPrices": [{

"referenceNumber": string,
                        "amount":
number
                    }
                ]
            }
        ]
    }
]</td></tr>
<tr><td colspan="2">In version 2.3, the partnerProducts array has been removed.</td></tr>
<tr><td colspan="2">In the array services[].flightReferences[] added information about available quotas for returned service (this array is returned only for service with the code = "PETC")</td></tr>
<tr><td>"services": [{
        "code": string,
        "flightReferences": [{
                "referenceNumber":
string,
                "passengerPrices": [{

"referenceNumber": string,
                        "amount":
number
                    }
                ]
            }
        ]
    }
]</td><td>"services": [{
        "code": string,
        "flightReferences": [{
                "referenceNumbers":
[string],
                "passengerPrices": [{

"referenceNumber": string,
                        "amount":
number
                    }
                ],
                "quotas": [{

"referenceNumber": string,
                        "quantity":
number
                    }
                ]
            }
        ]
    }
]</td></tr>
</table>

Service management of additional services v2.3

Method structure is described in api/reservation version 2.3.

Examples of requests and responses

Error adding airline service (invalid service code)	

{
"seats": [],
"insurance": null,
"partnerProducts": [],
"services": [
{
"code": "ABBB",
 	
"passengerReference": "12",
"flightReference":
"12"
}
]
}
	"errors": {
	"services": [{
	"code": "ABBB",
	"passengerReference": "12",
	"flightReference": "12",
	"internalError": 1001,
	"internalErrorMessage": "Invalid
	passenger or flight reference."
	}
	]
	}

Error when adding airline service (invalid reference to passenger)	

{
"seats": [],
"insurance": null,
"partnerProducts": [],
"services": [
{
"code": "ABAG",
 	
"passengerReference": "5",
"flightReference":
"12   "
}
]
}
	"errors": {
	"services": [{
	"code": "ABAG",
	"passengerReference": "5",
	"flightReference": "12",
	"internalError": 1001,
	"internalErrorMessage": "Invalid
	passenger or flight reference."
	}
	]
	}

Method for adding services to a booking: api/services/add

Description: a method for adding new services that allows not passing in the parameters already existing services in the order

Request format: api/apiVersion/services/add

Request body

```
{
   "services": [{
           "code": string,
           "text": string,
           "passengerReference": string,
           "flightReference": string,
           "referenceNumber": string
       }
   ],
   "seats": [{
```

```
            "number": integer,
            "title": string,
            "code": string,
            "text": string,
            "passengerReference": string,
            "flightReference": string,
            "referenceNumber": string
        }
    ]
}
```

Request parameters:

Parameter		Description
services		Array of objects with information about added services
	code	Additional service code
	text	Animal type
	passengerReference	Link to the passenger for whom the service is being added
	flightReference	Link to the segment for which the service is being added
	referenceNumber	Link to paid services. Taken from the GET api/reservation response.
seats		Array with objects about seats
	number	Row number for selected seat
	title	Seat
	code	Seat code
	text	Text
	passengerReference	Passenger reference for adding seat
	flightReference	Flight reference for adding seat
	referenceNumber	Link to paid seats. Taken from the GET api/reservation response.

Method for removing services from booking api/services/remove

Description: a method for removing services from an order, provided that no ticket has been issued for the service and the flight segment for which the service was added has not yet departed

Request format: api/apiVersion/services/remove

Request body: same as request body api/services/add

Optimized method for removing services from booking api/services/removeByReferences

Description: a method for removing services from an order (more optimized analog than POST api/services/remove), provided that no ticket has been issued for the service and the flight segment for which the service was added has not yet departed.

Note: in the body request need to pass only references to those services that need to be deleted.

Request format: api/apiVersion/services/removeByReferences

Request body:

```
{
    "services": [{
            "referenceNumber": string
        }
    ],
    "seats": [{
            "referenceNumber": string
        }
    ]
}
```

Request parameters:

Parameter	Description
services	The array with the links to services which need to delete from reservation
referenceNumber	Link to service which need to delete. Value is possible to get from the response of GET api/reservation, parameter data.services[].referenceNumber
seats	The array with the links to seats which need to delete from reservation
referenceNumber	Link to seat which need to delete. Value is possible to get from the response of GET api/reservation, parameter data.seats[].referenceNumber

Response format:

Response format regarding the removal of services and seats is the same with the response of GET api/reservation.

Method POST api/services/favorite

Description: allows you to get your favorite services for passengers

Request fromat /api/apiVersion/services/favorite

Request parameters

Parameter	Description
docNumbers	Passengers' document numbers
emdCodes	Service codes
months	Number of months to search

Request body example

```
{
  "DocNumbers": [
    string
  ],
  "EmdCodes": [
    string
  ],
  "Months": integer
}
```

Response body

```
{
  "data": [
    {
      "docNum": string,
      "emdCode": string,
      "value": string
    }
  ],
  "errors": [],
  "success": boolean
}
```

Response parameter

Parameter			Description
data			The data returned by the request
	docNum		Document Number
	emdCode		Service code
	value		Value
errors			Information about errors that occurred during the operation of the service.
	ibeCode		Error code
	description		Error description
	messages		An array of objects containing the errors from Sirena's response. The array may be empty, it is recommended to analyze the error by the ibeCode field.
		code	Sirena error code
		text	Sirena error text
success			Sign of the success of the request If the errors array is empty, then the field value will be true.

Request body example

```
{
  "data": [
    {
      "docNum": "3344112121",
      "emdCode": "RQST",
      "value": "6A"
    }
  ],
  "errors": [],
  "success": true
}
```

Service for obtaining a cataolog of serivces without PNR

API service	CatalogueStandalone
Short description	Service allows to receive information about additional services without PNR
Supported HTTP(S)-methods	POST
Conterminous systems methods used	**Sirena:** pricing_variant

Method POST CatalogueStandalone

Description: get information about catalog of additional services without PNR

Request format: api/apiVersion/CatalogueStandalone

Request body

```
{
    "flights": {
        "outboundFlights": [{
                "origin": string,
                "destination": string,
                "departureDate": datetime,
                "arrivalDate": datetime,
                "flightNumber": string,
                "classOfService": string,
                "marketingCarrier": string,
                "operatingCarrier": string,
                "flightIndex": integer
            }
        ],
        "returnFlights": [{
                "origin": string,
                "destination": string,
                "departureDate": datetime,
                "arrivalDate": datetime,
                "flightNumber": string,
                "classOfService": string,
                "marketingCarrier": string,
                "operatingCarrier": string,
                "flightIndex": integer
            }
        ]
    },
    "fares": {
        "outboundFareFamily": {
            "code": string,
            "category": string,
            "isSubsidized": boolean
        },
        "returnFareFamily": {
            "code": string,
            "category": string,
            "isSubsidized": boolean
        },
        "fares": [{
                "passengerType": string,
                "flightIndex": integer,
                "fareBasis": string,
                "isBreakpoint": boolean
            }
        ]
    },
    "passengers": [{
            "id": integer,
            "firstName": string,
            "middleName": string,
            "surname": string,
            "passengerType": string,
            "birthDate": datetime,
            "sex": string,
            "loyaltyCard": string,
            "disability": {
                "isDeaf": boolean,
                "isBlind": boolean,
                "hasGuideDog": boolean,
                "assistanceType": integer,
                "wheelchairType": integer,
                "commentary": string
            },
            "hasInfant": boolean,
            "nationality": string
        }
    ],
    "currency": string
}
```

Request parameters

Parameter	Description	Note
flights	Object with information about flights	
outboundFlights	An array of StandaloneInputFlight objects with information about flights in the "outbound" direction	
returnFlights	An array of StandaloneInputFlight objects with information about flights in the "return" direction	
fares	Tariff information object	
outboundFareFamily	Object with information on fares for "outbound" directions	
code	Fare family code. Data is taken from api/flights response: data.fareFamilies.code	
category	The category of the tariff family. Data is taken from api/flights response: data.fareFamilies.category	
isSubsidized	Sign of a subsidized tariff.	In developing
returnFareFamily	Object with information on fares for the "return" route	
code	Fare family code. Data is taken from api/flights response: data.fareFamilies.code	

Parameter	Description	Note
category	The category of the tariff family. Data is taken from api/flights response: data.fareFamilies.category	
isSubsidized	Sign of a subsidized tariff.	In developing
fares	Array with information about tariffs for directions "outbound" and "return"	
passengerType	Passenger type.	
flightIndex	Segment number for a specific flight (numbered from 1)	
fareBasis	Base rate name. The data is taken from the api/flights response: data.recommendations.outboundFareDetails.fareBasis and data.recommendations.returnFareDetails.fareBasis	
isBreakpoint	An indication of whether the tariff expires on the current segment. The data is taken from the api/flights response: data.recommendations.outboundFareDetails.isBreakpoint and data.recommendations.returnFareDetails.isBreakpoint	
passengers	Object with passenger information	
id	Passenger's serial number (numbered from 1) (required parameter)	
firstName	Passenger's name	
middleName	Passenger's patronymic	
surname	Passenger's surname	
passengerType	Passenger type (required parameter)	
birthDate	Date of birth	
sex	Passenger gender	

Parameter	Description	Note
loyaltyCard	Loyalty card number "Wings"	In developing
disability	Information about people with disabilities	
isDeaf	Hearing impairment	
isBlind	Visual impairment	
hasGuideDog	A guide dog must be accompanied, must be sent only together with the isBlind sign	
assistanceType	Passenger escort type	
wheelchairType	Wheelchair type	
commentary	Comment (optional)	
hasInfant	An indication that this passenger has a baby	
nationality	Pax nationality	
relatedInfantWithSeatId	Id of the ins related to the adult	
currency	Search currency	

StandaloneInputFlight

Parameter	Description
origin	Departure airport
destination	Arrival airport
departureDate	Date and time of departure. The data is taken from the api/flights response: data.outboundFlights.flights.departureDateTime or data.returnFlights.flights.departureDateTime Format: yyyy-MM-ddTHH:mm:ss Example: 2018-06-20T01:00:00

Parameter	Description
arrivalDate	Date and time of arrival. The data is taken from the api/flights response: data.outboundFlights.flights.arrivalDateTime or data.returnFlights.flights.arrivalDateTime Format: yyyy-MM-ddTHH:mm:ss Example: 2018-06-20T01:00:00
flightNumber	Flight number. The data is taken from the api/flights response: data.outboundFlights.flights.flightNumber or data.returnFlights.flights.flightNumber
classOfService	Information about the selected tariff. The data is taken from the api/flights response: data.recommendations.outboundFareDetails.bookingCode or data.recommendations.returnFareDetails.bookingCode
marketingCarrier	Marketing airline For example: U6, S7
operatingCarrier	The airline actually performing the flight For example: U6, OK
flightIndex	Segment number for a specific flight (numbered from 1)

Response format

```
{
    "data": {
        "services": [{
                "code": string,
                "flightReferences": [{
                        "referenceNumber": string,
                        "passengerPrices": [{
                                "referenceNumber": string,
                                "amount": number
                            }
                        ],

                        "quotas": [{
                                "referenceNumber": string,
                                "quantity": number
                            }
                        ]

                    }
                ]
            }
        ],
        "packs": [{
                "includedSeats": [string],
                "excludedSeats": [string],
                "includedServiceCode": string,
                "code": string,
                "flightReferences": [{
                        "referenceNumber": string,
                        "passengerPrices": [{
                                "referenceNumber": string,
                                "amount": decimal
                            }
                        ]
                    }
                ]
            }
        ],
        "seatServices": [{
                "seatCharacteristics": [string],
                "code": string,
                "flightReferences": [{
                        "referenceNumber": string,
                        "passengerPrices": [{
                                "referenceNumber": string,
                                "amount": number
                            }
                        ]
                    }
                ]
            }
        ],
        "petsServiceConfiguration": [{
                "petsList": [string],
                "flightReferences": [string]
            }
        ],
        "insuranceProducts": [{
                "code": string,
                "amount": number
            }
        ],
        "partnerProducts": [{
                "partnerId": "Unknown",
                "partnerType": "Unknown",
                "bookingStatus": "Unknown",
                "code": string,
                "amount": number,
                "currency": string,
                "passengerReference": string,
                "isInfantProduct": boolean,
                "bookingId": string,
                "internalError": integer,
                "internalErrorMessage": string
            }
        ],
        "portions": [{
                "type": string,
                "number": string,
                "flightReferenceNumbers": [string]
            }
        ],
        "serviceCategories": [{
                "code": string,
                "category": string,
                "order": integer,
                "fullDirection": boolean,
                "onlyForRussianCitizens": true
             }
        ],
        "serviceOptions": [{
                "code": string,
                "preselect": boolean,
                "flightReferences": [string],
                "category": string,
                "priority": integer,
             }
        ],
        "moneyWallCoefficient": string
    },
    "errors": [{
            "ibeCode": integer,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string,
                    "additionalInfo": {
                        "ssrType": string,
                        "info": string
                    }
                }
            ]
        }
    ],
    "success": boolean
}
```

Response parameters

Parameter					**Description**	**Note**
success					Sign of the success of the request. If the errors array is empty, then the field value will be true	
data					The data returned by the request	
	services				An array of objects with information about available airline services	
		code			Service code	
		flightReferences			An array with information about the segments and passengers for which the services are available, as well as the cost of these services.	
			referenceNumber		Flight segment reference	
			passengerPrices		An array of objects with information about the passenger and the cost of the service	
				referenceNumber	Reference to a specific passenger	
				amount	Service cost for a specific passenger	
			quotas		An array with information about available quotas for service (at the current time it's returned only for the service with code = "PETC").	
				referenceNumber	Reference to a specific passenger for whom quota is returned.	
				quantity	Count of available quotas for service.	
	packs				An array with available service packages	In developing
		includedSeats			An array of characteristics of available seats within the service package	
		excludedSeats			An array of characteristics of unavailable places within the service package	

Parameter					Description	Note
		includedServiceCode			Included service code	
		code			Service package code.	
		flightReferences			The arrays with information about the position and passengers, which services are available, as well as the cost of these services.	
			referenceNumber		Flight segment reference	
			passengerPrices		An array of objects with information about the passenger and the cost of the service	
				referenceNumber	Reference to a specific passenger	
				amount	Service cost for a specific passenger	
	serviceOptions				An array with information about which services should be automatically preselected on the front-end of the booking engine.	
		category			Service category	
		code			Service package code.	
		flightReferences			An array with information about segments for which services are available	
		preselect			Service field. If true, then the service should be automatically preselected in the UI. *Note: The logic was originally added for use in the Web client.*	
		priority			Service field. Used in conjunction with the preselect field. Indicates the priority of automatically adding a service to the UI, 0 is the highest. For example, if a service with a priority of 0 is not available for pre-selection, then a service with a priority of 1 will be added, etc.	

Parameter					Description	Note
	seatServices				An array of objects with information about the available seats for selection on the flight. **IMPORTANT:** The api/seatmap service returns more complete information about available seats and should be used to book a seat selection service.	In developing
		seatCharacteristics			Array of site characteristics.	
		code			Service code, SEAT	
		flightReferences			An array with information about the segments and passengers for which the services are available, as well as the cost of these services.	
			referenceNumber		Flight segment reference	
			passengerPrices		An array of objects with information about the passenger and the cost of the service	
				referenceNumber	Reference to a specific passenger	
				amount	Service cost for a specific passenger	
	petsServiceConfiguration				An array of objects that contain information about the availability of the animal transport service on different segments. It is necessary to control the transportation of animals at the tariffs of the "business" family.	
		petsList			An array of strings, contains a list of animals available for transport	
		flightReferences			An array of strings, contains a list of segments on which the service is available	
	serviceCategories				An array of objects, contains information about services and the order in which they are displayed on the site.	
		code			Service code	
		category			Service category	
		order			The order of the additional services on the page. 1 - top of the page	
		fullDirection			Flag indicating whether the service covers the entire flight	

Parameter				Description	Note
	portions			Service field	In developing
		type		Service field	
		number		Service field	
		flightReferenceNumbers		Service field	
moneyWallCoefficient				Coefficient for calculating the monthly installment payment	
errors				Information about errors that occurred during the operation of the service.	
	ibeCode			Error code	
	description			Error description	
	messages			An array of objects containing errors from Sirena' answer. The array may be empty, it is recommended to analyze the error by the ibeCode field.	
		code		Sirena error code	
		text		Sirena error text	
		additionalInfo		An array with additional error information	
			ssrType	Ssr type	
			info	Additional information	

Retrieve aircraft seatmap service

API service	seatmap
Short description	Allows to receive information about seatmap scheme in aircraft
Supported HTTP(S)-methods	GET
Conterminous systems methods used	**Sirena:** seat_map, svc_order_view

GET seatmap method

Description: receives information about seatmap scheme in aircraft.

Request format: api/apiVersion/seatmap

Request example

api/apiVersion/seatmap?referenceNumber=1&origin=LED&destination=DME&departureDate=20220723&flightNumber=80&classOfService=E&commercialFamily=U6ECONOMY

Request parameters

Information about flight for which seatmap is needed

Parameter	Mandatory	Description
referenceNumber	Yes	Reference to flight segment
origin	No	Origin airport
destination	No	Destination airport
departureDate	No	Date and time of departure
flightNumber	No	Flight number
classOfService	No	Information about selected tariff
commercialFamily	No	Fare family type, for instance: U6ECONOMY or U6BUSINESS
currency	No	Currency in which search results will be returned

Response format

```
{
  "data": {
    "isEmpty": boolean,
    "compartmentDetails": [{
        "number": integer,
        "seats": [{
            "seat": string,
            "number": integer,
            "description": string,
            "characteristics": [string],
            "occupation": string,
            "passengerRelatedPrice": [{
                "name": string,
                "type": string,
                "uniqueCustomerIdentifier": string,
                "seatPrice": number,
                "isSeatUnavailable": boolean,
                "hasInfant": boolean
              }
            ],
            "classDesignator": string
          }
        ]
      }
    ]
  },
    "passengersTotalData": [{
        "passengerReference": string,
        "passengerPriceLevels": [{
                "price": decimal,
                "priceLevel": integer
                }
        ]
        }
    ],
     "preselectedSeats": [{
              "flightReference": string,
              "passengerReference": string,
              "title": string,
              "number": integer
          }
      ],
   "errors": [{
      "ibeCode": integer,
      "description": string,
      "messages": [{
          "code": string,
          "text": string
        }
      ]
    }
  ],
  "success": boolean
}
```

Response parameters

Parameter					Description
success					Sign of query execution success. If errors array is empty, field value will be set to true
data					Returned data
	isEmpty				Flag identifying whether data is returned from sirena This field can be used to determine possibility of selecting seats on present flight segment
	compartmentDetails				Array of objects with information about seats grouped by rows
		number			Row number
		seats			Array of objects which contains detailed information about seats
			seat		Seat. Possible values: A-F
			number		Row number for seat
			description		Seat description 9 – central seat A – aisle seat W – window seat
			characteristics		Seat characteristics
			occupation		Sign of seat's occupation
			passengerRelatedPrice		Array of objects with information about seat prices for. Only available for seats with CH characteristics.
				name	Passenger name

				type	Passenger type
				uniqueCustomerIdentifier	unique passenger ID
				seatPrice	seat price
				isSeatUnavailable	Seat availability flag
				hasInfant	Flag identifying that passenger travels with infant
			classDesignator		Information about seat class. Possible values: ECONOMY, BUSINESS
	passengersTotalData				An array of objects with information about the cost of seats in the context of passengers
		passengerReference			Passenger reference
		passengerPriceLevels			An array of objects of the cost of seats available to the passenger
			price		Seat cost
			priceLevel		Seat value category
	preselectedSeats				Array with information about pre-added seats at the seat selection step in the booking engine.
		flightReference			Link to the flight segment.
		passengerReference			Link to the passenger.
		title			Seat letter.
		number			Seat number.
errors					Information about errors appeared during query execution.
	ibeCode				IBE error code
	description				IBE error description
	messages				Array of objects, containing conterminous system's errors Array might be empty. It is recommended to analyze ibeCode field.
		code			Sirena error code
		text			Sirena error text

Retrieve aircraft seatmap service without PNR

API service	SeatmapStandalone
Short description	Allows to receive information about seatmap scheme in aircraft without PNR
Supported HTTP(S)-methods	POST
Conterminous systems methods used	**Sirena:** pricing_variant, svc_pricing **CRM:** getContactMarkup

POST SeatmapStandalone method

Description: retrieve information about seatmap scheme in aircraft without PNR.

Request format: api/apiVersion/SeatmapStandalone

Request body

```
{
  "passengers": [
    {
      "id": integer,
      "firstName": string,
      "middleName": string,
      "surname": string,
      "passengerType": string,
      "birthDate": datetime,
      "sex": integer,
      "loyaltyCard": string,
      "disability": {
        "isDeaf": boolean,
        "isBlind": boolean,
        "hasGuideDog": boolean,
        "assistanceType": integer,
        "wheelchairType": integer,
        "commentary": string
      },
      "hasInfant": boolean
      "nationality": string

      "relatedInfantWithSeatId": integer

    }
  ],
  "origin": string,
  "destination": string,
  "departureDate": datetime,
  "flightNumber": string,
  "classOfService": string,
  "commercialFamily": string,
  "currency": string
 }
```

Параметры запроса

Parameter	Description	Note
passengers	Array with data about passengers	
id	Passenger's serial number (numbered from 1)	
firstName	Passenger's name	
middleName	Passenger's patronymic (may be absent)	
surname	Passenger's surname	
passengerType	Passenger type	
birthDate	Date of birth	

Parameter	Description	Note
sex	Passenger gender Possible values: see dictionary "gender of passengers"	
loyaltyCard	Loyalty card number "Wings"	In developing
disability	Information about people with disabilities	
isDeaf	Hearing impairment	
isBlind	Visual impairment	
hasGuideDog	A guide dog must be accompanied, must be sent only together with the isBlind sign	
assistanceType	Passenger assistance type Possible values: dictionary of assistance types	
wheelchairType	Wheelchair type Possible values: dictionary of wheelchair type	
commentary	Comment (optional)	
hasInfant	An sign that this passenger has a baby	
nationality	Nationality (country) Possible values: dictionary of countries	
relatedInfantWithSeatId	Id of the ins related to the adult	
origin	Departure airport	
destination	Destination airport	
departureDate	Date and time of departure Format: yyyy-MM-ddTHH:mm:ss Example: 2018-06-20T01:00:00	
flightNumber	Flight number.	
classOfService	Information about the selected tariff	
commercialFamily	Fare family type (different meals may be available on the same flight for economy and business).	

Parameter	**Description**	**Note**
currency	Search currency	

Формат ответа

```
{
    "data": {
        "compartmentDetails": [{
                "number": integer,
                "seats": [{
                        "seat": string,
                        "number": integer,
                        "description": string,
                        "characteristics": [string],
                        "occupation": string,
                        "passengerRelatedPrice": [{
                                "name": string,
                                "type": string,
                                "uniqueCustomerIdentifier": string,
                                "seatPrice": number,
                                "isSeatUnavailable": boolean,
                                "hasInfant": boolean
                            }
                        ],
                        "classDesignator": string
                    }
                ]
            }
        ],
        "isEmpty": boolean,
        "passengersTotalData": [{
                "passengerReference": string,
                "passengerPriceLevels": [{
                        "price": decimal,
                        "priceLevel": integer
                    }
                ]
            }
        ]
    },
    "errors": [{
            "ibeCode": integer,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string,
                    "additionalInfo": {
                        "ssrType": string,
                        "info": string
                    }
                }
            ]
        }
    ],
    "success": boolean
}
```

Response parameters

Parameter					**Description**
success					Sign of the success of the request. If the errors array is empty, then the field value will be true.
data					The data returned by the request.
	isEmpty				Flag identifying whether data is returned from sirena This field can be used to determine possibility of selecting seats on present flight segment
	compartmentDetails				Array of objects with information about seats grouped by rows
		number			Row number
		seats			Array of objects which contains detailed information about seats
			seat		Seat. Possible values: A-F
			number		Row number for seat
			description		Seat description 9 – central seat A – aisle seat W – window seat
			characteristics		Seat characteristics
			occupation		Sign of seat's occupation
			passengerRelatedPrice		Array of objects with information about seat prices for. Only available for seats with CH characteristics.
				name	Passenger name
				type	Passenger type
				uniqueCustomerIdentifier	unique passenger ID
				seatPrice	seat price
				isSeatUnavailable	Seat availability flag
				hasInfant	Flag identifying that passenger travels with infant

Parameter	Description
classDesignator	Information about seat class. Possible values: ECONOMY, BUSINESS
passengersTotalData	An array of objects with information about the cost of seats in the context of passengers
passengerReference	Passenger reference
passengerPriceLevels	An array of objects of the cost of seats available to the passenger
price	Seat cost
priceLevel	Seat value category
errors	Information about errors appeared during query execution.
ibeCode	IBE error code
description	IBE error description
messages	Array of objects, containing conterminous system's errors Array might be empty. It is recommended to analyze ibeCode field.
code	Sirena error code
text	Sirena error text
additionalInfo	Additional information about error
ssrType	Ssr type
info	Information

Cancellation service

API service	annul
Short description	Allows to cancel tickets and receive information on canceled bookings
Supported HTTP-(S) methods	GET, POST

API service	annul
Используемые методы смежных систем	**Sirena:** Getting information on booking - order Cancel (part or all) PNR seats (without tickets refund) - release_seats

POST api/annul method

Description: allows to cancel tickets for all passengers in the booking

Request format: /api/apiVersion/Annul

Request parameters: X-Session is passed in the header

Response format:

```
{
    "errors": [{
            "ibeCode": number,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string
                }
            ]
        }],
    "success": boolean
}
```

Response parameters:

Parameter		**Description**
success		Sign of the success of the request. If the errors array is empty, then the field value will be true
errors		Information about errors that occurred during the operation of the service.
	ibeCode	Error code, see Attachment 1. IBE error codes
	description	Error description, see Attachment 1. IBE error codes

Parameter			Description
	messages		An array of objects containing errors from Sirena answer. The array may be empty, it is recommended to analyze the error by the ibeCode field.
		code	Error code
		text	Error text

GET api/annul method

Description: allows to get information on booking cancellation

Request parameters: X-Session is passed in the header

Parameter	Obligation	Description
pnrNumber	yes	PNR number, unique six-character booking ID

Response format:

```
{
    "data": [{
            "pnrNumber": string,
            "createdDate": datetime
        }
    ],
    "errors": [{
            "ibeCode": number,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string
                }
            ]
        }],
    "success": boolean
}
```

Response parameters:

Parameter	Description
success	Sign of the success of the request. If the errors array is empty, then the field value will be true
data	The data returned by the request

Parameter			**Description**
	pnrNumber		PNR number
	createdDate		Date and time when the cancellation was issued
errors			Information about errors that occurred during the operation of the service.
	ibeCode		Error code, see Attachment 1. IBE error codes
	description		Error description, see Attachment 1. IBE error codes
	messages		An array of objects containing errors from Sirena answer. The array may be empty, it is recommended to analyze the error by the ibeCode field.
		code	Error code
		text	Error text

Partial cancellation service

API service	annul/partial
Short description	Allow to cancel certain tickets from reservation
Supported HTTP-(S) methods	POST
Used methods of related systems	**Sirena:** Getting information on booking - order Cancel (part or all) PNR seats (without tickets refund) - release_seats

POST api/annul method

Description: allow to cancel tickets for certain passengers in reservation

Request format: /api/apiVersion/Annul/Partial

Request parameters: X-Session is passed in the header

Request body

```
{
  "passengerReferences": [
    "string"
  ]
}
```

Response format:

```
{
    "errors": [{
            "ibeCode": number,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string
                }
            ]
        }],
    "success": boolean
}
```

Response parameters

Parameter			**Description**
success			Sign of the success of the request. If the errors array is empty, then the field value will be true
errors			Information about errors appeared during query execution.
	ibeCode		Error code, see EN_Attachment 1. IBE error codes
	description		Code description, see. EN_Attachment 1. IBE error codes
	messages		Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode.
		code	Error code
		text	Error text

Auxiliary partner's services management service

API service	partners/types, partners/[id]
Short description	Services allows to retrieve information about partner's services and add them to booking
Supported HTTP(S)-methods	GET, POST
Conterminous systems methods used	Partner's API

GET partners/types method

Description: Service allows to retrieve list of partner's services which are available for booking for specific application type.

Validated via API-key passing in method.

Request Format /api/apiVersion/partners/types

Request header X-session is not needed for call, no data from booking context is used.

Request parameters no parameters

Response format

```
{
  "data": [{
      "partnerId": integer,
      "name": string
    }
  ],
  "errors": [{
      "ibeCode": integer,
      "description": string,
      "messages": [{
          "code": string,
          "text": string
        }
      ]
    }
  ],
  "success": boolean
}
```

Response parameters

Parameter	Description
success	Sign of query execution success. If errors array is empty, field value will be set to true
data	Returned data
partnerId	Unique partner's code
name	Partner's name
errors	Information about errors appeared during query execution.
ibeCode	Error code, see EN_Attachment 1. IBE error codes
description	Code description, see. EN_Attachment 1. IBE error codes
messages	Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode.
code	Sirena error code
text	Sirena error text

Response example (Website application type)

```
{
    "data": [
        {
            "partnerId": 4,
            "name": "Aeroexpress"
        },
        {
            "partnerId": 1,
            "name": "AlfaInsurance"
        }
    ],
    "errors": [],
    "success": true
}
```

Response example (mobile application type)

```
{
    "data": [
        {
            "partnerId": 4,
            "name": "Aeroexpress"
        },
        {
            "partnerId": 2,
            "name": "SealineInsurance"
        }
    ],
    "errors": [],
    "success": true
}
```

GET partners/id method

Description: service allows to retrieve list of services available for specific partner.

Request format /api/apiVersion/partners/id

Request example /api/apiVersion/partners/1 - for retrieving of Alfastrah services.

Request headers X-Session **should** be passed because information about available partner's services depends on passenger's list, flight directions etc.

All information will be taken from booking context.

Request parameters

id - partner's code

Response format

```
{
    "data": [{
            "partnerId": integer,
            "partnerType": integer,
            "bookingStatus": integer,
            "code": string,
            "amount": nubmer,
            "preselectedOption": {
                "preselect": boolean,
                "passengers": [{
                        "referenceNumber": string,
                        "passengerType": string,
                               "flightReferences": [
                                                      string
                               ]
                     }
                ]
            },
            "compatibleProductCodes": [
                string
            ],
            "internalError": integer,
            "internalErrorMessage": string
```

```
        }
    ],
    "errors": [{
            "ibeCode": integer,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string,
                    "additionalInfo": {
                        "ssrType": string,
                        "info": string
                    }

                }

            ]
        }
    ],
    "success": boolean
}
```

Response parameters

Parameter	Description
success	Sign of query execution success. If errors array is empty, field value will be set to true
data	Returned data
partnerId	Unique partner's code
partnerType	Unique partner's type
bookingStatus	Booking service's status Field is left for backward compatibility and will always be set to 0.
code	Code of partner's service
amount	Cost of partner's service
currency	Currency
preselectedOption	An array of settings for pre-selecting an parners service (in the basket at the third step)
preselect	Sign of preselection of a partner service
passengers	An array of passengers for whom a partner service is preselected

referenceNumber	Passenger reference
passengerType	Passenger type, see Attachment 2. Dictionary of Passenger Types
flightReferences	id of segments in the booking with preselected option
compatibleProductCodes	An array of partner service codes that can be added to a booking at the current rate
internalError	Internal engine error code
internalErrorMessage	Description of an internal engine error
errors	Information about errors appeared during query execution.
ibeCode	Error code, see EN_Attachment 1. IBE error codes
description	Code description, see. EN_Attachment 1. IBE error codes
messages	Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode.
code	Sirena error code
text	Sirena error text
additionalInfo	Additional error information
ssrType	Ssr type
info	Information

Response example, Aeroexpress

Request /api/apiVersion/partners/4

```
{
  "data": [{
      "partnerId": 4,
      "partnerType": 2,
      "bookingStatus": 0,
      "code": "STANDARTOW",
      "amount": 500.0,
      "currency": "RUB"
    }, {
      "partnerId": 4,
      "partnerType": 2,
      "bookingStatus": 0,
      "code": "ADVSTANDART",
      "amount": 450.0,
      "currency": "RUB"
    }
  ],
  "errors": [],
  "success": true
}
```

Response example, Telemedicine

Request /api/apiVersion/partners/7

```
{
    "data": [{
            "partnerId": 7,
            "partnerType": 3,
            "bookingStatus": 0,
            "code": "SBERDOC",
            "amount": 300.00,
            "currency": "RUB",
            "preselectedOption": {
                "preselect": true,
                "passengers": [{
                        "referenceNumber": "2",
                        "passengerType": 0,
                                       "flightReferences": [
                                              "12"
                                      ]
                      }
                ]
            }
        }, {
            "partnerId": 7,
            "partnerType": 3,
            "bookingStatus": 0,
            "code": "SBERVET",
            "amount": 300.00,
            "currency": "RUB"
        }
    ],
    "errors": [],
    "success": true
}
```

POST partners method

Description: service allows to add partner's services to booking

Request format /api/apiVersion/partners

Request header X-Session **should** be passed in call because services are added to specific booking

Request format

```
{
    "products": [{
            "partnerId": integer,
            "code": string,
            "amount": decimal,
            "passengerReference": string,
                       "isInfantProduct": boolean
        }
    ]
}
```

Request parameters

Parameter	Description
partnerId	Partner's unique code
code	Code of partner's service
amount	The cost of the added service
passengerReference	Reference to the passenger to whom the service is being added (mandatory parameter for telemedicine)
isInfantProduct	Sign that the services was bought for an infant (mandatory parameter for alfamedicine)

Response format matches GET api/reservation method response.

Response example

```
{
  "data": {
    "journey": {
      "outboundFlights": [{
          "aircraft": "32N",
          "referenceNumber": "1",
          "origin": "LED",
          "destination": "DME",
          "departureDate": "2020-01-22T14:35:00",
          "arrivalDate": "2020-01-22T16:25:00",
          "flightNumber": "60",
          "classOfService": "E",
          "operatingCarrier": "U6",
          "marketingCarrier": "U6"
        }
      ],
      "outboundFareFamily": {
        "code": "ECOFLEXRU"
      },
      "origin": "LED",
      "destination": "DME",
      "departureDate": "2020-01-22T14:35:00"
    },
    "number": "VY9NCD",
    "passengers": [{
        "id": 1,
        "hasInfant": false,
        "referenceNumber": "2",
        "firstName": "TEST",
        "middleName": "TESTOVICH",
        "surname": "TESTOV",
        "passengerType": 0,
        "birthDate": "1988-08-11T00:00:00",
        "sex": 0,
        "nationality": "RUS",
        "documentNumber": "14001232244",
        "documentExpiryDate": "2029-12-25T00:00:00",
        "email": "TEST@YANDEX.RU",
        "phone": "79510002233",
        "documentType": 0,
        "isAdult": true,
        "isChanged": false
      }
    ],
    "services": [],
    "seats": [],
    "partnerProducts": [{
        "partnerId": 1,
        "partnerType": 1,
        "bookingStatus": 1,
        "code": "TRAVEL",
        "amount": 847.00,
        "currency": "RUB",
        "passengerReference": "2",
        "isInfantProduct": false,
        "bookingId": "94cf3c93-b6aa-49c5-8de1-f3fa2749b5e2"
      }, {
        "partnerId": 4,
        "partnerType": 2,
        "bookingStatus": 1,
        "code": "STANDARTOW",
        "amount": 500.00,
        "currency": "RUB",
        "passengerReference": "2",
        "isInfantProduct": false,
        "bookingId": "abf3bf5c-acc3-442d-98fa-df317ab439e2",
        "orderId": string
      }
    ],
    "hasSpecialConditions": false
  },
  "errors": [],
  "success": true
}
```

Examples of invalid requests and responses

Request	Response

Invalid partner's code for TRAVEL service
 	
{
    "products": [
        {
            "partnerId": 4,
            "code": "TRAVEL"
        },
        {
            "partnerId": 4,
            "code": "STANDARTOW"
        }
    ]
}
	"partnerProducts": [{
	    "partnerId": 4,
	    "partnerType": 2,
	    "bookingStatus": 1,
	    "code": "STANDARTOW",
	    "amount": 500.00,
	    "currency": "RUB",
	    "passengerReference": "2",
	    "isInfantProduct": false,
	    "bookingId": "f4b21bb1-7a31-46c2-b6b4-5198632e5f7f"
	  }
	],
	"hasSpecialConditions": false,
	"errors": {
	  "partnerProducts": [{
	      "internalError": 5000,
	      "internalErrorMessage": "Invalid product code",
	      "partnerId": 4,
	      "partnerType": 2,
	      "bookingStatus": 0,
	      "code": "TRAVEL",
	      "amount": 0.0,
	      "currency": "RUB"
	    }
	  ]
	}

Invalid service code for Sealine partner
 	
{
"products": [
{
"partnerId": 2,
"code": "AVIAPL"
},
{
"partnerId": 4,
"code": "STANDARTOW"
}
]
}
	"partnerProducts": [{
	"partnerId": 4,
	"partnerType": 2,
	"bookingStatus": 1,
	"code": "STANDARTOW",
	"amount": 500.00,
	"currency": "RUB",
	"passengerReference": "2",
	"isInfantProduct": false,
	"bookingId": "f4b21bb1-7a31-46c2-b6b4-5198632e5f7f"
	}
	],
	"hasSpecialConditions": false,
	"errors": {
	"partnerProducts": [{
	"internalError": 5000,
	"internalErrorMessage": "Invalid product code",
	"partnerId": 2,
	"partnerType": 1,
	"bookingStatus": 0,
	"code": "AVIAPL",
	"amount": 0.0,
	"currency": "RUB"
	}
	]
	}

Ticket void service

API service	ticket/void
Short description	Allows to void air tickets and additional services
Supported HTTP(S)-methods	POST
Conterminous systems methods used	**Sirena:** void_tickets

POST ticket/void method

Description: void of air tickets and additional services.

Note: when voiding not all the tickets from the booking split happens and all tickets that are voided are transferred to separated booking, the PNR of which is returned in the response of POST /ticket/void. Tickets that were not voided remain in the original booking. The error is returned when trying to split an infant (or leave it in the original booking) without an adult.

Request format /api/apiVersion/ticket/void

Request body

```
{
    "TicketNumbers": [string],
    "NeedReturnSeats": boolean
}
```

Request parameters

Parameter	**Description**
TicketNumbers	Array of air tickets and additional services to void
NeedReturnSeats	Seat void flag

Response body

```
{
    "data": {
        "voidedTicketNumbers": [string],
        "notVoidedTicketNumbers": [string],
               "notVoidReason": string,
        "separatedPnr": string
    },
    "errors": [{
      "ibeCode": string,
      "description": string,
      "messages": [{
          "code": string,
          "text": string
        }
      ]
    }],
    "success": boolean
}
```

Response parameters

Parameter			**Description**
data			Returned data
	voidedTicketNumbers		Array of voided tickets
	notVoidedTicketNumbers		Array of tickets that failed to be voided
	notVoidReason		Reason why void failed
	separatedPnr		Pnr of splitted reservation
errors			Information about errors appeared during query execution.
	ibeCode		IBE error code
	description		IBE error description
	messages		Array of objects, containing conterminous system's errors Array might be empty. It is recommended to analyze ibeCode field.
		code	Sirena error code
		text	Sirena error text
success			Sign of query execution success. If errors array is empty, field value will be set to true

Services for working with queues (for agents)

Service for placing PNR to queues.

API service	queue/placePNR
Short description	The service allows placing PNR in queue
Supported HTTP-(S) methods	POST
Used methods of related systems	**Sirena:** queue_pnr_place

POST queue/placePNR method

Description: placing the PNR in queues

Request format /api/apiVersion/queue/placePNR

Request parameters

Parameter	Description
queueNumber	Queue number in which need to place the booking
pnr	Booking number which need to be queued

Response format

```
{
    "data": [{
        }],
    "errors": [{
            "ibeCode": integer,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string,
                    "additionalInfo": {
                        "ssrType": string,
                        "info": string
                    }
                }
            ]
        }
    ],
    "success": boolean
}
```

Response parameters

Parameter	Description
success	Sign of query execution success. If errors array is empty, field value will be set to true
data	Empty array of objects
errors	Information about errors appeared during query execution.
ibeCode	IBE error code
description	IBE error description
messages	Array of objects, containing conterminous system's errors Array might be empty. It is recommended to analyze ibeCode field.
code	Sirena error code
text	Sirena error text
additionalInfo	Additional information about error
ssrType	Ssr type
info	Information

Examples of successful requests and responses

Request

```
{
    "queueNumber": 1,
    "pnr": "1Z9RR1"
}
```

Response

```
{
    "data": {},
    "errors": [],
    "success": true
}
```

Examples of failed requests and responses

An example of an attempt to add the booking to the queue, which is not available for the key of the office under which the addition is being made

Response

```
{
    "errors": [{
            "ibeCode": 36001,
            "description": "Pnr access error",
            "messages": []
        }
    ],
    "success": false
}
```

An example of an attempt to add the booking to inaccessible queue for the office key under which the addition is being made

Response

```
{
    "errors": [{
                "ibeCode": 36002,
                "description": "Queue access error",
                "messages": []
            }
        ],
        "success": false
}
```

Service for retrieving the list of bookings from the queue

API service	queue/list
Short description	The service allows to retrieve the list of bookings from the queue
Supported HTTP-(S) methods	POST
Used methods of related systems	**Sirena:** queue_show

POST queue/list method

Description retrieving the list of bookings from the queue

Request format /api/apiVersion/queue/list

Request parameters

Parameter	Description
queueNumber	Number of the queue for which the list of bookings is requested to be returned

Response format

```
{
    "data": [{
            "queuedPnrs": [{
                    "number": string,
                    "passengers": [{
                            "name": string,
                            "surname": string
                        }
                    ]
                }
            ]
        }
    ],
    "errors": [{
            "ibeCode": integer,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string,
                    "additionalInfo": {
                        "ssrType": string,
                        "info": string
                    }
                }
            ]
        }
    ],
    "success": boolean
}
```

Response parameters

Parameter	Description
success	Sign of the success of the request. If the errors array is empty, then the field value will be true.
data	Array with information about booking lists
queuedPnrs	Array of objects with basic information about queues
number	Queue number
passengers	Array with information about passengers in the booking
name	Name and patronymic (if any) of the passenger
surname	Last name of the passenger
errors	Information about errors appeared during query execution.
ibeCode	IBE error code
description	IBE error description

	messages			Array of objects, containing conterminous system's errors Array might be empty. It is recommended to analyze ibeCode field.
		code		Sirena error code
		text		Sirena error text
		additionalInfo		Additional information about error
			ssrType	Ssr type
			info	Information

Examples of successful requests and responses

Request

```
{
    "queueNumber": 1
}
```

Response

```
{
    "data": {
        "queuedPnrs": [{
                "number": "1Z29X1",
                "passengers": [{
                        "name": "IVAN IVANOVICH",
                        "surname": "IVANOV"
                    }
                ]
            }
        ]
    },
    "errors": [],
    "success": true
}
```

Examples of failed requests and responses

Request for a non-existent queue

Response

```
{
    "errors": [{
            "ibeCode": 36000,
            "messages": [{
                    "code": "33065",
                    "text": "No such queue"
                }
            ]
        }
    ],
    "success": false
}
```

Service for retrieving the count of records

API service	queue/counttotal
Short description	The service allows retrieving the count of records.
Supported HTTP-(S) methods	POST
Used methods of related systems	**Sirena:** queue_count

POST queue/counttotal method

Description retrieving the count of records

Request format /api/apiVersion/queue/counttotal

Request parameters are empty

Response format

```
{
    "data": [{
            "queuesInfo": [{
                    "queueNumber": integer,
                    "queueName": string,
                    "count": integer
                }
            ]
        }],
    "errors": [{
            "ibeCode": integer,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string,
                    "additionalInfo": {
                        "ssrType": string,
                        "info": string
                    }
                }
            ]
        }
    ],
    "success": boolean
}
```

Response parameters

Параметр			Описание
success			Sign of the success of the request. If the errors array is empty, then the field value will be true.
data			An array with information about the number of bookings in queues
	queuesInfo		Array of objects with basic information about the number of PNRs in the queues
		queueNumber	Queue number
		queueName	Queue title
		count	Number of bookings in the queue
errors			Information about errors appeared during query execution.
	ibeCode		IBE error code
	description		IBE error description
	messages		Array of objects, containing conterminous system's errors Array might be empty. It is recommended to analyze ibeCode field.
		code	Sirena error code
		text	Sirena error text
		additionalInfo	Additional information about error
		ssrType	Ssr type
		info	Information

Examples of successful responses

Response

```
{
    "data": {
        "queuesInfo": [{
                "queueNumber": 1,
                "queueName": "CONFOS",
                "count": 7
            }, {
                "queueNumber": 2,
                "queueName": "NOT SOLD PTA",
                "count": 4
            }, {
                "queueNumber": 7,
                "queueName": "SCH CHD",
                "count": 36
            }
        ]
    },
    "errors": [],
    "success": true
}
```

Service for removing PNR from the queues

API service	queue/removeItem
Short description	The service allows removing the PNR from the queues.
Supported HTTP-(S) methods	POST
Used methods of related systems	**Sirena:** queue_pnr_remove

POST queue/removeItem method

Description removing the PNR from the queues

Request format /api/apiVersion/queue/removeItem

Request parameters

Parameter	Description
queueNumber	Number of the queue from which the reservation is requested to be deleted
pnr	Booking number to be removed from the queue

Response format

```
{
    "data": [{
        }],
    "errors": [{
            "ibeCode": integer,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string,
                    "additionalInfo": {
                        "ssrType": string,
                        "info": string
                    }
                }
            ]
        }
    ],
    "success": boolean
}
```

Response parameters

Parameter				Description
success				Sign of query execution success. If errors array is empty, field value will be set to true
data				Empty array of objects
errors				Information about errors appeared during query execution.
	ibeCode			IBE error code
	description			IBE error description
	messages			Array of objects, containing conterminous system's errors Array might be empty. It is recommended to analyze ibeCode field.
		code		Sirena error code
		text		Sirena error text
		additionalInfo		Additional information about error
			ssrType	Ssr type
			info	Information

Examples of successful requests and responses

Request

```
{
    "queueNumber": 111,
    "pnr": "1Z9S18"
}
```

Response

```
{
    "data": {},
    "errors": [],
    "success": true
}
```

Examples of failed requests and responses are the same as examples of failed requests and responses for POST queue/placePNR method

Obtain recommendations for rebook /api/Exchange/Search (for agents)

API service	/Exchange/Search
Short description	Obtain list of available recommendations for rebook
Supported HTTP(S)-methods	POST
Conterminous systems methods used	**Sirena:** exchange_pricing

Method POST Exchange/Search

Note: allow to get information about the cheapest option for exchange with non-negative amount for surcharge

Request format: api/apiVersion/Exchange/Search

Request headers

X-Api-Key - unique GUID for the systems, using IBE API.

Request body

```
{
    "pnrNumber": string,
    "lastName": string,
    "originDestinations": [
        {
            "origin": string,
            "destination": string,
                       "flightNumber": integer,
                       "classOfService": string,
            "departureDate": datetime,
            "segmentReference": string
        }
    ],
    "passengerReferences": [
        string
    ]
}
```

Request parameters

Parameter	Description
reservationNumber	Number of a reservation
lastName	Surname of a passenger
originDestination	

		An array of data about the part of the flight to be exchanged
	origin	/IATA-code of origin airport
	destination	IATA-code of destination airport
	flightNumber	Number of flight
	classOfSerivce	Class of serivce
	departureDate	Departure date
	segmentReference	Reference to the segment to be exchanged
passengerReference		Reference to the segment whose tickets to be exchanged

Response format

```
{
    "data": {
        "flights": [flightGroup],
        "fareFamilies": [
            {
                "fareFamilyId": integer,
                "code": string,
                "category": string,
                "isSubsidized": boolean,
                "options": [
                    {
                        "code": string,
                        "category": string,
                        "order": integer,
                        "showInPopup": boolean,
                        "showInSummary": boolean,
                        "showInUpsell": boolean,
                        "showInFareIncluded": boolean,
                        "showForAdult": boolean,
                        "showForInfant": boolean,
                        "showInBookingCart": boolean
                    }
                ],
                "order": integer,
                "commercialFamily": string,
                "canRefund": boolean,
                "hasUpsale": boolean,
                "isLowCost": boolean
            }
        ],
        "recommendations": [
            {
                "totalPrice": float,
                "totalAddCollectPrice": float,
                "breakdowns": [
                    {
                        "ticketNumber": string,
                        "passengerReference": string,
                        "paxType": integer,
                        "baseFareAmount": float,
                        "taxAmount": float,
                        "totalAmount": float,
                        "addCollectAmount": float
                    }
                ],
                "flightGroupDetails": [
                    {
                        "flightGroupId": integer,
                        "fareFamilyId": integer,
                        "isExchange": boolean,
                        "baggageAllowances": [
                            {
                                "quantity": integer,
                                "weight": integer,
                                "passengerType": integer
                            }
                        ],
                        "fareDetails": [
                            {
                                "bookingCode": string,
                                "fareBasis": string,
                                "isBreakpoint": boolean,
                                "paxType": integer,
                                "paxCount": integer,
                                "flightIndex": integer,
                                "ruleKey": string
                            }
                        ],
                        "flightGroupHash": string
                    }
                ]
            }
        ],
        "currency": string,
        "foodOnBoards": [{
                "departureAirport": string,
                "arrivalAirport": string,
                "flightNumber": string,
                               "commercialFamily": string,
                "translation": {
                    "ru": string,
                    "en": string,
                    "zh": string
                }
            }
               ],
        "moneyWallCoefficient": float
    },
    "errors": [{
            "ibeCode": integer,
            "description": string,
            "messages": [{
```

```
                    "code": string,
                    "text": string
                }
            ]
        }
        ],
    "success": true
}
```

flightGroup object

```
{
  "flightGroupId": integer,
  "flights": [{
      "flightId": integer,
      "departureAirport": string,
      "departureTerminal": string,
      "arrivalAirport": string,
      "arrivalTerminal": string,
      "departureDateTime": datetime,
      "excludedNationalities": [
          string
      ]
      "arrivalDateTime": datetime,
      "aircraft": string,
      "aircraftIataCode": string,
      "techStops": [{
          "arrivalDateTime": datetime,
          "departureDateTime": datetime,
          "airportCode": string,
          "stopDuration": string,
          "flightDurationUntilNextStop": string
        }
      ],
      "flightDuration": string,
      "flightDurationUntilNextStop": string,
      "stopDuration": string,
      "flightNumber": string,
      "marketingCarrier": string,
      "operatingCarrier": string,
      "codeshareName": string,
      "hash": string
    }
  ],
  "flightGroupDuration": string,
  "hash": string
}
```

Response parameters

Parameter	Description
success	Sign of query execution success. If errors array is empty, field value will be set to true
data	Returned data
currency	currency in which prices are represented
moneyWallCoefficient	Coefficient for calculating the monthly installment payment
flights	Array of flightGroup objects with information about flights
fareFamilies	Array of objects with information about fare families
fareFamilyId	Fare family ID
code	Fare family code, for ex: ECOLIGHTRU/ECOFLEXRU/ECOPREMRU etc.
category	Fare family category, for ex: ECOLIGHT/ECOFLEX/ECOPREM Possible values: see Attachment 2, Main fare family categories
order	Fare families display order
commercialFamily	f\Fare family type for ex: U6ECONOMY or U6BUSINESS
isSubsidized	Sign of subsidised tariff
canRefund	Sign of refundable tariff
hasUpsale	Sign indentifying whether present tariff can be upgraded to next one in price category. Used for management of Upsale block display in frontend.
options	Array of fareFamiliesOptions objects with information about tariff options. Possible values: see Attachment 2, tariff options
foodOnBoards	Array of objects with information about meals available on the flight
departureAirport	Airport of departure

Parameter	**Description**
arrivalAirport	Airport of arrival
flightNumber	Flight number
commercialFamily	Fare family type (different type of meals for economy and business can be available for one flight)
translation	Object with translation options
ru	Options translation to russian
en	Options translation to english
zh	Option translation chinese
recommendations	Array of recommendations objects for flights
totalPrice	Total ticket price including all applied discounts
totalAddCollectPrice	Amount to be paid in case of rebook
breakdowns	Array of tickets that are available for exchange
ticketNumber	Number of issued ticket
passengerReference	Reference to a passenger
paxType	Type of a passenger
baseFareAmount	Base price
taxAmount	Tariffs and fees
totalAmount	Full ticket price including tariffs and fees
AddCollectAmount	Amount to be paid in case of rebook
errors	Information about errors appeared during query execution.
ibeCode	Error code, see EN_Attachment 1. IBE error codes
description	Code description, see. EN_Attachment 1. IBE error codes
messages	Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode.
code	Sirena error code
text	Sirena error text

flightGroup object

Contain information about flights

data.flights		
flightGroupId		Index number used in recommendations
flightGroupDuration		Total flight time: summed up of duration values of each transfer and technical stop.
hash		Service field
flights		Array of objects with information about transfers
	flightId	Flight Id
	departureAirport	Airport of departure
	departureTerminal	Terminal in airport of departure
	arrivalAirport	Airport of arrival
	departureDateTime	Departure date and time Format: yyyy-MM-ddTHH:mm:ss Example: 2018-05-27T17:25:00
	arrivalDateTime	Arrival date and time Format: yyyy-MM-ddTHH:mm:ss Example: 2018-05-27T20:50:00
	aircraft	Full aircraft title For ex.: Airbus A320
	aircraftIataCode	IATA aircraft code
	flightDuration	Duration of flight
	flightNumber	flight number
	marketingCarrier	Marketing carrier Example: U6, S7
	operatingCarrier	Operating carrier (one actually performed flight) Example: U6, OK
	hash	service field

Involuntary ticket refund service for agents using.

POST involuntaryRefund/moneyless method

API service	**InvoluntaryRefund/moneyless**
Short description	Let to process involuntary refund of tickets and services for agents
Supported HTTP(S)-methods	POST
Conterminous systems methods used	**Sirena:** Receiving booking information: order, pnr_status Refund initiation: svc_emd_refund_query, svc_emd_refund_confirm, payment-ext-auth Making changes to a booking: add_ssr, modify_pnr, divide_order

Description: agents method that let to process involuntary refund of tickets and services in PSS system without interaction with payment system of Airline.

Request format: /api/apiVersion/InvoluntaryRefund/Moneyless

Request parameters:

Parameter	Mandatory	Description
pnrNumber	yes	Unique booking number (PNR).
passengers	yes	Array with information about passengers whom needs to process the involuntary moneyless refund
isTicketRefund	yes	The sign that a ticket with services or only services is being refunded.
partnerProducts	no	An array of partner services to be returned (the array parameters are similar to the apiVersion/partners/id response parameters)

	lastName		yes	Passenger's last name
	passengerReferenceNumber		yes	Passenger reference. Associated with field data -> passengers -> referenceNumber
	relatedAdultReferenceNumber		no	Reference to the adult passenger with whom the child or infant is flying. The parameter is filled for the child and infant
	relatedInfantReferenceNumber		no	Reference to the infant with whom the adult is flying. The parameter is filled for the adult who flies with infant.
	passengerType		yes	Passenger type. Possible types of passengers are presented in EN_8_1_Attachment: Dictionaries of passenger types.
	services		no	An array with information about purchased and refundable additional services of the airline.
		code	no	Returned additional service code.
		ticketNumber	no	Ticket number of the returned additional service.

Response format and parameters are the same with POST api/refund/partial method response format and parameters.

Voluntary tickets and services refund service

API Service	refund, refund/calculate, refund/partial
Short description	Allows to calculate refund sum and perform tickets and services refund and also get information about already performed refund.
Поддерживаемые HTTP(S)-методы	POST, GET
Используемые методы смежных систем	**Sirena:** Receive information about booking: order, pnr_status Initiate refund: svc_emd_refund_query, svc_emd_refund_confirm, payment-ext-auth Making changes to a booking: add_ssr, modify_pnr, divide_order **CRM:** Create refund request: ServiceReqInsert_Input **BPC:** Registering an order for autorefund: bmmRefund

POST refund/calculate method

Description: allows to receive breakdown of refund sums for each passenger.

Request format: /api/apiVersion/refund/calculate

Request parameters:

Parameter	Mandadtory	Description	Comments
pnrNumber	yes	PNR number, unique 6-digit booking identifier	
lastName	no	Passenger's last name	
passengers	yes	Array of passengers for which refund sums needs to be calculated	

lastName	yes	Passenger's last name	
passengerReferenceNumber	yes	Reference to passenger Linked with data → passengers → reference Number	
relatedAdultReferenceNumber	no	Reference to the adult passenger with whom the child or infant is flying. The parameter is filled for the child and infant	
relatedInfantReferenceNumber	no	Reference to the infant with whom the adult is flying. The parameter is filled for the adult who flies with infant.	
luggageSeats	no	Array with information about luggage with separate air ticket and ssr CBBG.	In developing
referenceNumber	yes	Ссылка на услугу, для которой оформлен отдельный авиабилет. Соотносится с полем в ответе GET Reservation data → luggageSeats → referenceNumber.	In developing
passengerType	yes	Passenger type. Possible values: see EN_8_1_Attachment: Dictionaries of passenger types	
isInvoluntaryMoneyless	no	Indicates whether the calculation of refundable amounts is for performing POST api/InvoluntaryRefund/Moneyless refund on ADP.	

Request examples

Refund for adult passenger

```
{
    "pnrNumber": "1ZGDLS",
        "isInvoluntaryMoneyless": false,
    "passengers": [{
            "lastName": "CHEREPANOV",
            "passengerType": 0,
            "passengerReferenceNumber": "12",
            "luggageSeats": []
        }
    ]
}
```

Refund for adult and child

```
{
    "pnrNumber": "1ZGDWS",
    "passengers": [{
            "lastName": "BYKOV",
            "passengerType": 0,
            "passengerReferenceNumber": "12",
            "luggageSeats": []
        }, {
            "lastName": "BARABANOV",
            "passengerType": 5,
            "passengerReferenceNumber": "14",
            "luggageSeats": [],
            "relatedAdultReferenceNumber": "12"
        }
    ]
}
```

Response format

```
{
    "data": [{
            "passengerRefundDetails": [{
                    "hasInfant": boolean,
                    "passengerType": integer,
                    "referenceNumber": string,
                    "surname": string,
                    "ticketRefundDetails": {
                        "isInfantTicket": boolean,
                        "commissionAmount": integer,
                        "refundBonuses": integer,
                        "refundCurrency": integer,
                        "refundTotal": integer,
                        "taxDetailsInformation": [{
                                "taxCategory": string,
                                "taxDetails": [{
                                        "rate": string,
                                        "currencyCode": string,
                                    "type": string
                                }
                            ]
                        }
                    ],
                    "ticketNumber": string
                },
                "luggageSeatsRefundDetails": [],
                "serviceRefundDetails": [{
                        "code": string,
                        "text": string,
                        "commissionAmount": integer,
                        "refundBonuses": integer,
                        "refundCurrency": integer,
                        "refundTotal": integer,
                        "taxDetailsInformation": [{
                                "taxCategory": string,
                                "taxDetails": [{
                                        "rate": string,
                                        "currencyCode": string,
                                        "type": string
                                    }
                                ]
                            }
                        ],
                        "ticketNumber": string
                    }
                ],
                "partnerProducts": [{
                        "document": string,
                        "refundAmount": integer,
                        "isRefundAmountUnknown": boolean,
                        "partnerId": integer,
                        "partnerType": integer,
                        "bookingStatus": integer,
                        "code": string,
                        "amount": integer,
                        "currency": string,
                        "passengerReference": string,
                        "flightReference": string,
                        "isInfantProduct": boolean,
                        "bookingId": string,
                        "orderId": string,
                        "compatibleProductCodes": [string]
                    }
                ]
            }
        ],
        "refundWithTicketOnlyServices": [string]
    }
],
"errors": [{
        "ibeCode": number,
        "description": string,
        "messages": [{
                "code": string,
                "text": string
```

```
                    }
                ]
            }
        ],
        "success": boolean
}
```

Response parameters

Parameter				Description	Comments
success				Sign of query execution success. If errors array is empty, field value will be set to true	
data				Returned data	
	passengerRefundDetails			Array of objects with refund details information for each passenger.	
		hasInfant		Flag identifying whether passenger travels with infant	
		passengerType		Passenger type Possible values: see EN_8_1_Attachment: Dictionaries of passenger types	
		referenceNumber		Reference to passenger	
		surname		Passenger's surname	
		ticketRefundDetails		Array of objects with refund details information	
			isInfantTicket	Flag identifying whether ticket is infant's document	
			commissionAmount	Commission amount for refund	
			refundBonuses	Number of refunded "Wings" bonuses	
			refundCurrency	Number of refunded	

			refundTotal			Total refund sum, sum of refundBonuses and refundCurrency	
			ticketNumber			ATC number Ticket number should contain 13 digits	
			taxDetailsInformation			Services information about tariffs and fees. **Important:** Information from present segment can be ignored. refundBonuses and refundCurrency values should be displayed to a user.	
				taxCategory		Tax category For refundable taxes "R" is returned, for non-refundable taxes - "NRT".	
				taxDetails		Array of objects with information about tariffs and fees details.	
					rate	Tariff/fee sum	
					currencyCode	Currency code	
					type	Tariff/fee type	
		luggageSeatsRefundDetails				Array with information about CBBG luggage with separate air ticket to refund. All array elements are the same with passengerRefundDetails array elements, the field "surname" has value "CBBG".	In developing
		serviceRefundDetails				Array of objects with service's refund information.	

			code			Service code Possible values: see EN_8_1_Attachment: Dictionaries of services types	
			text			Type of refundable pet when code="PETC".	
			commissionAmount			Commission amount for refund of service.	
			refundBonuses			Number of refunded "Wings" bonuses	
			refundCurrency			Number of refunded roubles	
			refundTotal			Total refund sum, sum of refundBonuses and refundCurrency	
			ticketNumber			EMD number Ticket number should contain 13 digits	
			taxDetailsInformation			Services information about tariffs and fees.	
				taxCategory		Tax category. For refundable taxes "R" is returned, for non-refundable taxes - "NRT".	
				taxDetails		Array of objects with information about tariffs and fees.	
					rate	Tariff/fee sum	
					currencyCode	Currency code	
					type	Tariff/fee type	
		partnerProducts				Array of objects with partner's products refund information	
			amount			Partner's service price	
			bookingId			Unique partner's service order id	

			bookingStatus	Partner's services order status	
			code	Partner's service tariff code. See EN_8_3_Attachment: Partner's services.	
			currency	Currency code	
			document	Partner's service document number. For insurances - issued insurance policy number.	
			isInfantProduct	Flag identifying whether service is issued for an infant.	
			isRefundAmountUnknown	Flag identifying whether the amount for refund of partner product is unknown.	
			partnerId	Partner's id.	
			partnerType	Partner's type.	
			passengerReference	Reference to passenger for whom partner's service is being refunded	
			refundAmount	Refundable sum.	
			flightReference	Reference to the flight segment, if the partner product wasn't added for the entire flight.	
			orderId	Partner order id	
			compatibleProductCodes	Codes of services of the current partner, which are compatible with this service when purchased it	
	refundWithTicketOnlyServices			Array with service codes that can't be refunded without refunding the ticket.	In developing
errors				Information about errors appeared during query execution.	
	ibeCode			Error code, see EN_8_2_Attachment: IBE error codes	

	description		Code description, see. EN_8_2_Attachment: IBE error codes	
	messages		Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode.	
		code	Sirena error code	
		text	Sirena error text	

POST refund/partial method

Description: allows you to refund tickets for booking in the context of passengers.

Request format: /api/apiVersion/refund/partial

Request parameters:

Parameter		Mandadtory	Description	Comments
pnrNumber		yes	PNR number, unique 6-digit booking identifier	
passengers		yes	An array of passengers for which refund sums needs to be calculated	
	isTicketRefund	yes	The sign that a ticket with services or only services is being returned	
	partnerProducts	no	An array of partner services to be returned (the array parameters are similar to the GET api/Reservation response parameters)	
	lastName	yes	Passenger's last name	

	passengerReferenceNumber		yes	Passenger reference. Associated with field data -> passengers -> referenceNumber	
	luggageSeats		no	Array with information about luggage with separate air ticket and ssr CBBG.	In developing
	passengerType		yes	Passenger type. Possible types of passengers are presented in EN_8_1_Attachment: Dictionaries of passenger types.	
	relatedAdultReferenceNumber		no	Reference to the adult passenger with whom the child or infant is flying. The parameter is filled for the child and infant	
	relatedInfantReferenceNumber		no	Reference to the infant with whom the adult is flying. The parameter is filled for the adult who flies with infant.	
	services		no	An array with information about purchased and refundable additional services of the airline	
		code	yes	Returned additional service code	
		ticketNumber	yes	Ticket number of the returned additional service	

Response format: the same as the refund/calculate method, the crmRefundRequestId field is added with the number of the created request for a refund to CRM, if autorefund was unsuccessful.

Response parameters (short description):

Parameter		Description	Comments
success		Sign of query execution success. If errors array is empty, field value will be set to true	
data		Returned data	
	passengerRefundDetails	Array with refund information Full analogue of data in response of api/refund/calculate method	
	crmRefundRequestId	Refund request number in CRM. Example: 1-46MJI9D.	
	refundWithTicketOnlyServices	Array with service codes that can't be refunded without refunding the ticket.	In developing
errors		Information about errors appeared during query execution.	

Requests examples

Example of requesting a full refund of a ticket with additional airline services and partner services

```
{
    "pnrNumber": "1ZGLB0",
    "lastName": "KUZNETSOV",
    "passengers": [{
            "lastName": "KUZNETSOV",
            "passengerType": 0,
            "passengerReferenceNumber": "12",
            "luggageSeats": [],
            "isTicketRefund": true,
            "partnerProducts": [{
                    "partnerId": 7,
                    "partnerType": 3,
                    "bookingId": "36a0173b-aee6-40e6-8d80-aaf3b154904b",
                    "code": "SBERDOC"
                }, {
                    "partnerId": 1,
                    "partnerType": 1,
                    "bookingId": "49753312-18df-4ac0-a68e-7c15ea8fe8b8",
                    "code": "AVIADYNAMIC"
                }
            ],
            "services": [{
                    "ticketNumber": "2624500003235",
                    "code": "HTML"
                }
            ]
        }
    ]
}
```

Example of request for refund of partner services without a ticket

```
{
    "pnrNumber": "1ZROML",
    "lastName": "TESTOV",
    "passengers": [{
            "lastName": "TESTOV",
            "passengerType": 0,
            "passengerReferenceNumber": "12",
            "isTicketRefund": false,
            "partnerProducts": [{
                    "partnerId": 1,
                    "partnerType": 1,
                    "bookingId": "9940f823-4bb8-4c7c-a485-7341551c3285",
                    "code": "AVIADYNAMIC"
                }
            ]
        }
    ]
}
```

An example of a request for a refund of additional airline services without a ticket

```
{
    "pnrNumber": "1ZRTVO",
    "lastName": "TESTOV",
    "passengers": [{
            "lastName": "TESTOV",
            "passengerType": 0,
            "passengerReferenceNumber": "12",
            "isTicketRefund": true,
            "partnerProducts": [],
            "services": [{
                    "ticketNumber": "2624552270079",
                    "code": "PETC"
                }
            }
        ]
    }
```

Description of voluntary refund process

Voluntary refund is initiated by airline's client own will.

Short description of voluntary refund business process.

1. Client opens BMM (booking management module) using PNR number and passenger's last name.
2. Selects option "Make a return", pop-up window gets opened with information about passengers existing in booking.
3. Selects a Voluntary refund.
4. Selects passengers for whom refund is needed to be performed and clicks on "Calculate amount" (for refund).
5. api/refund/calculate method is called, refund details data is displayed to client (refund bonuses, sum, fines etc). Actual refund is not performed at this step.
6. Client selects "Confirm refund" option, api/refund/partial method is called.
7. The IBE service performs a refund of services and/or air tickets to the API of partners and Sirena.
8. The IBE service validates the possibility of registering an auto return order.
9. The IBE service registers an order for return (using a separate method for registering a return order in the PM. Registration is always on the original PNR for which the payment was made).
10. The PM checks the possibility of auto-refund for the current order: it requests a GET api/refund, validates the contents of the order and the amounts to be refunded.
11. The PM sends a refund request to the bank.
12. The PM sends the status of the request for a refund: Option A - the order is accepted by the bank for return; Option B - the order is not accepted for return, or an error has been received from the PM
13. Then option A:
    1. The IBE service informs the user about a successfully completed refund request with information that the funds will be credited to the card within some time, depending on the bank
    2. The PM fiscalizes the return receipt. The check is sent to the client.
    3. When you re-enter the BMM, information is displayed that the order has been returned.
14. Then option B:
    1. The IBE service generates a request for a refund in CRM.
    2. If the return fails, one of the possible error messages is displayed.
    3. The IBE service informs the user about a successfully created refund request with information about the request number.
    4. Within 30 days, the request in CRM is processed manually by the operator, and the amount to be returned is requested from the engine.
    5. After financial refund operation is performed, confirmation is sent to IBE (information about refund completion is being recorded to DB).
    6. Refund considered to be complete.

General technical information.

1. For each refund (initiated by api/refund method call) a record with unique refund session ID is created in DB.
2. 3 entities can be linked with refund session: a) tickets refund information entity, b) airline's services refund information entity c) partner's services refund information entity
3. Refund session can have several states. During refund process IBE transfers session from one state to another performing following operations:
    1. Initiated - refund session is initiated;
    2. VatCalculated - VAT information is calculated for refund;
    3. PartnerServicesCanceled - partners services cancellation performed if it is necessary;
    4. PnrSplitted - PNR is split into several parts (in case of partial refund);
    5. CrmRequestCreated - Refund request is created in CRM;
    6. PnrCanceled - PNR and tickets are cancelled (irreversible operation). In case of partial refund child PNR and its tickets gets cancelled.
    7. ManualAnalysis - an error appeared in voluntary refund process. See point 5.
4. Entities with information about tickets, airline's and partner's services also has several states:
    1. NotAvailable - entity is not available for refund sum information retrieve;
    2. Available - refund sum information can be retrieved for a ticket/service;
    3. Processed - refund is confirmed;
    4. ManualProcessingRequired - manual processing is required for this refund;
    5. Failed - refund confirmation end with an error
5. Complete of the refund session to the final state
   If an error appears during refund procedure and operation hangs in one of intermediate states (before PnrCanceled state) then special job periodically attempts to continue refund process.
   If refund session does not transfer to terminal state, during allotted time, IBE logs an error and transfers session to ManualAnalysis state.
   Error gets handled in Azure Insights and email notification is being sent for this event. Manual analysis of this situation is performed afterwards.

For retrieving of refund session information and refund confirmation GET refund/pnr and PUT refund/pnr methods of GOI is being used.

These methods are described in GOI documentation.

Failed request and response examples

Description	Request format	Response example

Lets consider that in 1ZGLL0 booking adult passenger (of type 0) is added and correct reference to passenger - 12.
 	
An error will appear in case of:
 	
1. Incorrect reference to passenger is passed.
2. Incorrect type of passenger is passed.
	Request for point 1.
	
	{
	"pnrNumber": "1ZGLL0",
	"lastName": "TERENTEVA",
	"passengers": [
	{
	"lastName":
	"TERENTEVA",
	"passengerType":
	0,
	
	"passengerReferenceNumber":
	"14",
	
	"isTicketRefund": true,
	"luggageSeats":
	[],
	"services": [],
	
	"partnerProducts": []
	}
	]
	}
	
	Request for point 2.
	
	{
	"pnrNumber": "1ZGLL0",
	"lastName": "TERENTEVA",
	"passengers": [
	{
	"lastName":
	"TERENTEVA",
	"passengerType":
	1,
	
	"passengerReferenceNumber":
	"12",
	
	"isTicketRefund": true,
	"luggageSeats":
	[],
	"services": [],
	
	"partnerProducts": []
	}
	]
	}
		{
		"errors": [
		{
		"ibeCode":
		1062,
		"messages":
		[
		{
		
		"text": "Some passenger refund requested for doesn't exist in reservation"
		},
		{
		
		"text": "The reservation doesn't have a ticket to refund or the request has an infant ticket to refund"
		}
		]
		}
		],
		"success": false
		}

Booking for 1 adult and 1 child
 	
It is not possible to perform refund only for adult passenger.
	{
	"pnrNumber": "1ZGDWS",
	"lastName": "BYKOV",
	"passengers": [
	{
	"lastName": "BYKOV",
	"passengerType": 0,
	"passengerReferenceNumber": "12",
	"isTicketRefund": true,
	"luggageSeats": [],
	"services": [],
	"partnerProducts": []
	}
	]
	}
		{
		"errors": [
		{
		"ibeCode": 1062,
		"messages": [
		{
		"text": "Some passenger refund requested for is not adult or after refund an infant will be left without adults"
		}
		]
		}
		],
		"success": false
		}

GET refund method

Description: allows to receive information about already performed refund.

Request format: /api/refund

Request parameters:

Parameter	Description	Comments
pnrNumber	PNR number, unique 6-digit booking identifier	
lastName	Passenger's last name	
lastNameHash	Passenger last name hash	
ticketNumber	Ticket number of passenger	In developing

Response format

```
{
    "data": {
               "pnrNumber": string,
            "createdDate": datetime,
            "crmRefundRequestId": string
    },
    "errors": [{
            "ibeCode": number,
            "description": string,
            "messages": [{
                    "code": string,
                    "text": string
                }
            ]
        }
    ],
    "success": true
}
```

Response format:

Parameter			Description
success			Sign of query execution success. If errors array is empty, field value will be set to true
data			Returned data
	pnrNumber		PNR number, unique 6-digit booking identifier
	createdDate		Date and time in GMT of refund.
	crmRefundRequestId		Request ID in CRM.
errors			Information about errors appeared during query execution.
	ibeCode		Error code, see EN_8_2_Attachment: IBE error codes
	description		Code description, see. EN_8_2_Attachment: IBE error codes
	messages		Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode
		code	Sirena error code
		text	Sirena error text

Example of successful response:

```
{
    "data": [{
            "pnrNumber": "1ZGK8W",
            "createdDate": "2022-08-23T11:31:54.279264",
            "crmRefundRequestId": "1-5KYKNCR"
        }
    ],
    "errors": [],
    "success": true
}
```

Online check-in services api/checkin

Services for obtaining information about the status of registration and the possibility of registration

API service	Checkin, Checkin/reservation, Checkin/register, Checkin/cancel
Short description	Allows you to check the possibility of online check-in from the BMM and if it is available to check-in.
Supported HTTP(S)-methods	GET, POST
Conterminous systems methods used	**Sirena:** order, pnr_status, view_flown_status, authorize, doSearchFltMulti, doLoadPnrMulti, doSavePax, doViewCraft, addProtLayer

Метод GET Checkin

Description: allows you to get data about the possibility of registration and the current registration status.
Returns the start and end time of registration, as well as the time remaining before the start or end of registration.

Request format /api/apiVersion/checkin
Request parameters

Parameter	**Description**
lastName	Last name of one of the passengers added to the booking. The parameter is passed in Latin.
pnrNumber	The PNR number to get information for

Response format

```
{
  "data": [
    {
      "segments": [
        {
          "canRegister": boolean,
          "flightReference": string,
          "webCheckinEndDate": datetime,
          "webCheckinEndDateUtc": datetime,
          "webCheckinStartDate": datetime,
          "webCheckinStartDateUtc": datetime,
          "webCheckinEndRemainingTime": integer,
          "webCheckinStartRemainingTime": integer
        }
      ],
      "passengers": [
        {
          "canRegister": boolean,
          "passengerReference": string,
          "flightReference": string,
          "ticketNumber": string,
          "registered": boolean,
          "registrationUnavailableMessage": string,
          "registrationUnavailableCode": integer
        }
      ],
      "passengerSeats": [
        {
          "seatCheckinStatus": string,
          "flightReference": string,
          "passengerReference": string,
          "title": string,
          "number": integer
        }
      ]
    }
  ],
  "errors": [
    {
      "ibeCode": string,
      "description": string,
      "messages": [
        {
          "code": string,
          "text": string,
          "additionalInfo": {
            "ssrType": string,
            "info": string
          }
        }
      ]
    }
  ],
  "success": boolean
}
```

Response parameters

Parameter	Description
success	Sign of query execution success. If errors array is empty, field value will be set to true

data			Information about online registration
	segments		Array of flight segments
		canRegister	Sign web registration is available
		flightReference	Link to the flight segment
		webCheckinEndDate	Local end date of web registration
		webCheckinEndDateUtc	UTC end date of web registration
		webCheckinStartDate	Local Web registration start date
		webCheckinStartDateUtc	UTC start date of web registration
		webCheckinEndRemainingTime	The number of seconds until the end of the web registration. The parameter will not be returned if the value <=0
		webCheckinStartRemainingTime	The number of seconds before the start of the web registration. The parameter will not be returned if the value <=0
	passengers		Список пассажиров
		canRegister	Sign of the possibility of registration
		passengerReference	Link to the passenger
		flightReference	Link to the flight segment
		ticketNumber	Passenger's ticket number for the segment
		registered	Sign the passenger is registered

		registrationUnavailableMessage	An array of objects containing errors from Sirena's response, why this passenger cannot be registered. The array may be empty, it is recommended to analyze the error by the registration Unavailable Code field.
		registrationUnavailableCode	The error code that makes registration impossible
	passengerSeats		Passenger seats at check-in
		seatCheckinStatus	Registration status. Possible values in Attachment: Dictionary of description of statuses of seats on checkin
		flightReference	Link to the flight segment
		passengerReference	Link to the passenger
		title	Row seat
		number	Seat number
errors			Information about errors that occurred during the operation of the service
	ibeCode		Error code, see Attachment 1. IBE error codes
	description		Error description, see Attachment 1. IBE error codes

	messages	An array of objects containing errors from Sirena answer. The array may be empty, it is recommended to analyze the error by the ibeCode field.
	code	Sirena error code
	text	Sirena error text

Examples of successful responses

The answer is when the check-in is open and the passenger is not registered

```
{
    "data": {
        "segments": [
            {
                "canRegister": true,
                "flightReference": "12",
                "webCheckinEndDate": "2023-04-15T09:50:00",
                "webCheckinEndDateUtc": "2023-04-15T04:50:00Z",
                "webCheckinStartDate": "2023-04-13T11:50:00",
                "webCheckinStartDateUtc": "2023-04-13T06:50:00Z",
                "webCheckinEndRemainingTime": 48932
            }
        ],
        "passengers": [
            {
                "canRegister": true,
                "passengerReference": "12",
                "flightReference": "12",
                "ticketNumber": "2622400030362",
                "registered": false
            }
        ],
        "passengerSeats": []
    },
    "errors": [],
    "success": true
}
```

Response when registration is completed

```
{
    "data": {
        "segments": [
            {
                "canRegister": true,
                "flightReference": "12",
                "webCheckinEndDate": "2023-04-15T06:50:00",
                "webCheckinEndDateUtc": "2023-04-15T01:50:00Z",
                "webCheckinStartDate": "2023-04-13T08:50:00",
                "webCheckinStartDateUtc": "2023-04-13T03:50:00Z",
                "webCheckinEndRemainingTime": 39211
            }
        ],
        "passengers": [
            {
                "canRegister": true,
                "passengerReference": "12",
                "flightReference": "12",
                "ticketNumber": "2622400030311",
                "registered": true
            }
        ],
        "passengerSeats": [
            {
                "seatCheckinStatus": 4,
                "flightReference": "12",
                "passengerReference": "12",
                "title": "C",
                "number": 19
            }
        ]
    },
    "errors": [],
    "success": true
}
```

Answer when registration is not open yet:

```
{
    "data": {
        "segments": [
            {
                "canRegister": false,
                "flightReference": "12"
            }
        ],
        "passengers": [
            {
                "canRegister": false,
                "passengerReference": "12",
                "flightReference": "12",
                "ticketNumber": "2622400030358",
                "registered": false,
                "registrationUnavailableMessage": "No requested flight in
reservation",
                "registrationUnavailableCode": 401161
            }
        ]
    },
    "errors": [],
    "success": true
}
```

GET Seatmap/checkin method

Description: allows you to get a map of places for online registration

Request format /api/apiVersion/Seatmap/checkin

Request example

api/apiVersion/seatmap/checkin?referenceNumber=1&origin=LED&destination=DME&departureDate=20220723&flightNumber=80&classOfService=E&commercialFamily=U6ECONOMY

Request parameters

Information about flight for which seatmap is needed

Parameter	**Mandatory**	**Description**
referenceNumber	Yes	Reference to flight segment
origin	No	Origin airport
destination	No	Destination airport
departureDate	No	Date and time of departure
flightNumber	No	Flight number
classOfService	No	Information about selected tariff
commercialFamily	No	Fare family type, for instance: U6ECONOMY or U6BUSINESS
currency	No	Currency in which search results will be returned

Response format

```
{
  "data": {
    "compartmentDetails": [
      {
        "number": integer,
        "seats": [
          {
            "seat": string,
            "number": integer,
            "description": string,
            "characteristics": [
              string
            ],
            "occupation": string,
            "passengerRelatedPrice": [
              {
                "name": string,
                "type": string,
                "uniqueCustomerIdentifier": string,
                "seatPrice": double,
                "isSeatUnavailable": boolean,
                "hasInfant": boolean,
                "autoSeating": boolean
              }
            ],
            "classDesignator": string
          }
        ]
      }
    ],
    "isEmpty": boolean,
    "passengersTotalData": [
      {
        "passengerReference": string,
        "passengerPriceLevels": [
          {
            "price": double,
            "priceLevel": integer
          }
        ]
      }
    ],
    "passengerSeats": [
      {
        "seatCheckinStatus": string,
        "flightReference": string,
        "passengerReference": string,
        "title": string,
        "number": integer
      }
    ],
    "preselectedSeats": [
      {
        "flightReference": string,
        "passengerReference": string,
        "title": string,
        "number": integer
      }
    ]
  },
  "errors": [
    {
      "ibeCode": string,
      "description": string,
      "messages": [
        {
          "code": string,
          "text": string,
          "additionalInfo": {
            "ssrType": string,
            "info": string
          }
        }
      ]
    }
  ],
  "success": boolean
}
```

Response parameters

Parameter	Description
success	Sign of query execution success. If errors array is empty, field value will be set to true
data	Returned data
isEmpty	Flag identifying whether data is returned from sirena This field can be used to determine possibility of selecting seats on present flight segment
compartmentDetails	Array of objects with information about seats grouped by rows
number	Row number
seats	Array of objects which contains detailed information about seats
seat	Seat. Possible values: A-F
number	Row number for seat
description	Seat description 9 – central seat A – aisle seat W – window seat
characteristics	Seat characteristics. The main characteristics are listed in the Appendix: Reference books
occupation	Sign of seat's occupation

			passengerRelatedPrice		Array of objects with information about seat prices for. Only available for seats with CH characteristics.
				name	Passenger name
				type	Passenger type
				uniqueCustomerIdentifier	Unique passenger ID
				seatPrice	seat price
				isSeatUnavailable	Seat availability flag
				hasInfant	Flag identifying that passenger travels with infant
				autoSeating	Flag of a free place for auto-seating
			classDesignator		Information about seat class. Possible values: ECONOMY, BUSINESS
		passengersTotalData			An array of objects with information about the cost of seats in the context of passengers
			passengerReference		Passenger reference
			passengerPriceLevels		An array of objects of the cost of seats available to the passenger
				price	Seat cost
				priceLevel	Seat value category
		passengerSeats			Array of places to register
			seatCheckinStatus		The status of the place on registration
			flightReference		Link to the flight segment
			passengerReference		Link to the passenger
			title		Row seat
			number		Seat number
		preselectedSeats			Pre-selection of seats
			flightReference		Link to the flight segment
			passengerReference		Link to the passenger
			title		Row seat
			number		Seat number
errors					Information about errors appeared during query execution.

	ibeCode		IBE error code
	description		IBE error description
	messages		Array of objects, containing conterminous system's errors Array might be empty. It is recommended to analyze ibeCode field.
		code	Sirena error code
		text	Sirena error text

POST Checkin/reservation method

Description: The method allows you to reserve a place for online registration

Request format /api/apiVersion/checkin/reservation

Response format

```
{
    "seats": [{
                "number": integer,
                "title": string,
                "passengerReference": string,
                "flightReference": string
        }
    ],
    "boardingPassEmail": string
}
```

Request parameters

	Parameter	Description
seats		Array with information about reserved seats
	number	Seat number
	title	Row seat
	passengerReference	Link to the passenger
	flightReference	Link to the flight segment
boardingPassEmail		E-mail for sending boarding pass after registration. Optional parameter.

Request example

```
{
    "seats": [{
            "passengerReference": "12",
            "flightReference": "12",
            "number": 25,
            "title": "A"
        }
    ],
    "boardingPassEmail": "test@test.ru"
}
```

Response format

```
{
  "data": {
    "passengers": [
      {
        "flightReference": string,
        "passengerReference": string,
        "number": integer,
        "title": string,
        "reserveFree": boolean
      }
    ]
  },
  "errors": [
    {
      "ibeCode": string,
      "description": string,
      "messages": [
        {
          "code": string,
          "text": string,
          "additionalInfo": {
            "ssrType": string,
            "info": string
          }
        }
      ]
    }
  ],
  "success": boolean
}
```

Response parameters

Parameter	Description
success	Sign of the success of the request. If the errors array is empty, then the field value will be true

data			The data returned by the request
	passengers		Список пассажиров
		passengerReference	Link to the passenger
		flightReference	Link to the flight segment
		number	Seat number
		title	Row seat
		reserveFree	The sign of a free place at registration
errors			Information about errors that occurred during the operation of the service
	ibeCode		Error code, see Attachment 1. IBE error codes
	description		Error description, see Attachment 1. IBE error codes
	messages		An array of objects containing errors from Sirena answer. The array may be empty, it is recommended to analyze the error by the ibeCode field
	code		Sirena error code
	text		Sirena error text

Response example

```
{
    "data": {
        "passengers": [
            {
                "flightReference": "12",
                "passengerReference": "12",
                "number": 12,
                "title": "C",
                "reserveFree": false
            }
        ]
    },
    "errors": [],
    "success": true
}
```

POST Checkin/register method

Description: The method will allow you to register a passenger for a free seat

Request format /api/apiVersion/checkin/register

Request format

```
{
    "references": [{
            "passengerReference": string,
            "flightReference": string
        }
    ]
}
```

Request parameters

	Parameter	Description
references		Array with information about registered passengers and flight segments.
	passengerReference	Link to the passenger
	flightReference	Link to the flight segment

Request example

```
{
    "references": [{
            "passengerReference": 12,
            "flightReference": 12
        }
    ]
}
```

Тело ответа

```
{
  "data": {
    "flights": [
      {
        "pnrNumber": string,
        "aircraft": string,
        "aircraftIataCode": string,
        "referenceNumber": string,
        "origin": string,
        "destination": string,
        "departureDate": datetime,
        "arrivalDateUtc": datetime,
        "departureDateUtc": datetime,
        "arrivalDate": datetime,
        "flightNumber": string,
        "classOfService": string,
        "commercialFamily": string,
        "operatingCarrier": string,
        "marketingCarrier": string,
        "codeshareName": string,
        "flightDuration": string,
        "stopDuration": string,
        "techStops": [
          {
            "arrivalDateTime": datetime,
            "departureDateTime": datetime,
            "airportCode": string,
            "stopDuration": string,
            "flightDurationUntilNextStop": string
          }
        ],
        "flightDurationUntilNextStop": string,
        "arrivalTerminal": string,
        "departureTerminal": string,
        "hash": string,
        "statuses": [
          string
        ],
        "isCancelledByAirline": true
      }
    ],
    "passengers": [
      {
        "flightReference": string,
        "passengerReference": string,
        "number": integer,
        "title": string,
        "emd": string,
        "registered": boolean
      }
    ],
    "passengersErrors": [
      {
        "flightReference": string,
        "referenceNumber": string,
        "code": integer,
        "text": string
      }
    ]
  },
  "errors": [
    {
      "ibeCode": string,
      "description": string,
      "messages": [
        {
          "code": string,
          "text": string,
          "additionalInfo": {
            "ssrType": string,
            "info": string
          }
        }
      ]
    }
  ],
  "success": boolean
}
```

Response parameters

Parameter			Description
success			Sign of the success of the request. If the errors array is empty, then the field value will be true
data			Информация об онлайн-регистрации на место
	flights		Online check-in information
		pnrNumber	Unique Booking Number (PNR).
		aircraft	Aircraft
		aircraftIataCode	IATA aircraft code
		referenceNumber	Link to the current flight segment
		origin	Departure airport for the current segment
		destination	Arrival airport for the current segment
		departureDate	Departure date and time for the current segment
		arrivalDateUtc	Arrival date and time for the current segment in UTC
		departureDateUtc	Departure date and time for the current segment in UTC
		arrivalDate	Date and time of arrival for the current segment

		flightNumber	Flight number
		classOfService	Information about the selected tariff
		commercialFamily	Type of tariff family
		operatingCarrier	The airline actually performing the flight
		marketingCarrier	Marketing Airline
		codeshareName	Code name
		flightDuration	Duration of the flight
		stopDuration	Duration of the stop
		techStops	Array with information about technical stops
		flightDurationUntilNextStop	Duration of the flight to the next stop
		arrivalTerminal	Terminal number at the point of arrival
		departureTerminal	Terminal number at the point of departure
		hash	Unique hash of the flight
		statuses	Segment status
		isCancelledByAirline	Indication of flight cancellation by the airline
	passengers		List of passenger seats
		flightReference	Link to the flight segment
		passengerReference	Link to the passenger
		number	Seat number
		title	Row number
		emd	Electronic document confirming the release of the place service
		registered	Sign of registration
	passengersErrors		Array of registration errors

		flightReference	Link to the flight segment
		referenceNumber	Link to the passenger
		code	Error code
		text	Error text
errors			Information about errors that occurred during the operation of the service
	ibeCode		Error code, see Attachment 1. IBE error codes
	description		Error description, see Attachment 1. IBE error codes
	messages		An array of objects containing errors from Sirena answer. The array may be empty, it is recommended to analyze the error by the ibeCode field
	code		Sirena error code
	text		Sirena error text

Response example

```
{
    "data": {
        "flights": [
            {
                "pnrNumber": "217MSL",
                "aircraft": "Airbus A319",
                "aircraftIataCode": "319",
                "referenceNumber": "12",
                "origin": "SVX",
                "destination": "DME",
                "departureDate": "2023-04-18T06:50:00",
                "arrivalDateUtc": "2023-04-18T04:15:00Z",
                "departureDateUtc": "2023-04-18T01:50:00Z",
                "arrivalDate": "2023-04-18T07:15:00",
                "flightNumber": "264",
                "classOfService": "A",
                "commercialFamily": "U6ECONOMY",
                "operatingCarrier": "U6",
                "marketingCarrier": "U6",
                "flightDuration": "2:25",
                "techStops": [],
                "hash": "2023-04-18 06:50:00-264-SVX-DME",
                "statuses": [
                    "HK"
                ],
                "isCancelledByAirline": false
            }
        ],
        "passengers": [
            {
                "flightReference": "12",
                "passengerReference": "12",
                "number": 24,
                "title": "A",
                "registered": true
            }
        ],
        "passengersErrors": []
    },
    "errors": [],
    "success": true
}
```

Example of a response in case of an error in registration

```
{
    "data": {
        "flights": [
            {
                "pnrNumber": "217D9K",
                "aircraft": "Airbus A319",
                "aircraftIataCode": "319",
                "referenceNumber": "12",
                "origin": "SVX",
                "destination": "DME",
                "departureDate": "2023-04-18T06:50:00",
                "arrivalDateUtc": "2023-04-18T04:15:00Z",
                "departureDateUtc": "2023-04-18T01:50:00Z",
                "arrivalDate": "2023-04-18T07:15:00",
                "flightNumber": "264",
                "classOfService": "A",
                "commercialFamily": "U6ECONOMY",
                "operatingCarrier": "U6",
                "marketingCarrier": "U6",
                "flightDuration": "2:25",
                "techStops": [],
                "hash": "2023-04-18 06:50:00-264-SVX-DME",
                "statuses": [
                    "HK"
                ],
                "isCancelledByAirline": false
            }
        ],
        "passengers": [],
        "passengersErrors": [
            {
                "flightReference": "12",
                "referenceNumber": "12",
                "code": 401166,
                "text": "Passenger seat not reserved."
            }
        ]
    },
    "errors": [],
    "success": true
}
```

POST Checkin/cancel method

Description: The method allows you to cancel free passenger registration

Note: After the registration is removed, it is possible to register for another place

Request format /api/apiVersion/checkin/cancel

Request body

```
{
    "references": [{
            "passengerReference": string,
            "flightReference": string
        }
    ]
}
```

Request parameters

	Parameter	Description
references		Array with information about references to passengers for whom need to cancel registration and flight segments.
	passengerReference	Link to the passenger
	flightReference	Link to the flight segment

Request example

```
{
    "references": [{
            "passengerReference": 12,
            "flightReference": 12
        }
    ]
}
```

Response body

```
{
  "data": {
    "flights": [
      {
        "pnrNumber": string,
        "aircraft": string,
        "aircraftIataCode": string,
        "referenceNumber": string,
        "origin": string,
        "destination": string,
        "departureDate": datetime,
        "arrivalDateUtc": datetime,
        "departureDateUtc": datetime,
        "arrivalDate": datetime,
        "flightNumber": string,
        "classOfService": string,
        "commercialFamily": string,
        "operatingCarrier": string,
        "marketingCarrier": string,
        "codeshareName": string,
        "flightDuration": string,
        "stopDuration": string,
        "techStops": [
          {
            "arrivalDateTime": datetime,
            "departureDateTime": datetime,
            "airportCode": string,
            "stopDuration": string,
            "flightDurationUntilNextStop": string
          }
        ],
        "flightDurationUntilNextStop": string,
        "arrivalTerminal": string,
        "departureTerminal": string,
        "hash": string,
        "statuses": [
          string
        ],
        "isCancelledByAirline": true
      }
    ],
    "passengers": [
      {
        "flightReference": string,
        "passengerReference": string,
        "number": integer,
        "title": string,
        "emd": string,
        "registered": boolean
      }
    ],
    "passengersErrors": [
      {
        "flightReference": string,
        "referenceNumber": string,
        "code": integer,
        "text": string
      }
    ]
  },
  "errors": [
    {
      "ibeCode": string,
      "description": string,
      "messages": [
        {
          "code": string,
          "text": string,
          "additionalInfo": {
            "ssrType": string,
            "info": string
          }
        }
      ]
    }
  ],
  "success": boolean
}
```

Response parameters

Parameter			Description
success			Sign of the success of the request. If the errors array is empty, then the field value will be true
data			Информация об онлайн-регистрации на место
	flights		Online check-in information
		pnrNumber	Unique Booking Number (PNR).
		aircraft	Aircraft
		aircraftIataCode	IATA aircraft code
		referenceNumber	Link to the current flight segment
		origin	Departure airport for the current segment

		destination	Arrival airport for the current segment
		departureDate	Departure date and time for the current segment
		arrivalDateUtc	Arrival date and time for the current segment in UTC
		departureDateUtc	Departure date and time for the current segment in UTC
		arrivalDate	Date and time of arrival for the current segment
		flightNumber	Flight number
		classOfService	Information about the selected tariff
		commercialFamily	Type of tariff family
		operatingCarrier	The airline actually performing the flight
		marketingCarrier	Marketing Airline
		codeshareName	Code name
		flightDuration	Duration of the flight
		stopDuration	Duration of the stop
		techStops	Array with information about technical stops
		flightDurationUntilNextStop	Duration of the flight to the next stop
		arrivalTerminal	Terminal number at the point of arrival
		departureTerminal	Terminal number at the point of departure
		hash	Unique hash of the flight
		statuses	Segment status
		isCancelledByAirline	Indication of flight cancellation by the airline
	passengers		List of passenger seats

		flightReference	Link to the flight segment
		passengerReference	Link to the passenger
		number	Seat number
		title	Row number
		emd	Electronic document confirming the release of the place service
		registered	Sign of registration
	passengersErrors		Array of registration errors
		flightReference	Link to the flight segment
		referenceNumber	Link to the passenger
		code	Error code
		text	Error text
errors			Information about errors that occurred during the operation of the service
	ibeCode		Error code, see Attachment 1. IBE error codes
	description		Error description, see Attachment 1. IBE error codes
	messages		An array of objects containing errors from Sirena answer. The array may be empty, it is recommended to analyze the error by the ibeCode field
	code		Sirena error code
	text		Sirena error text

Response example

```
{
    "data": {
        "flights": [
            {
                "aircraft": "Airbus A319",
                "aircraftIataCode": "319",
                "referenceNumber": "12",
                "origin": "SVX",
                "destination": "DME",
                "departureDate": "2023-04-18T06:50:00",
                "arrivalDateUtc": "2023-04-18T04:15:00Z",
                "departureDateUtc": "2023-04-18T01:50:00Z",
                "arrivalDate": "2023-04-18T07:15:00",
                "flightNumber": "264",
                "classOfService": "A",
                "commercialFamily": "U6ECONOMY",
                "operatingCarrier": "U6",
                "marketingCarrier": "U6",
                "flightDuration": "2:25",
                "techStops": [],
                "hash": "2023-04-18 06:50:00-264-SVX-DME",
                "statuses": [
                    "HK"
                ],
                "isCancelledByAirline": false
            }
        ],
        "passengers": [
            {
                "flightReference": "12",
                "passengerReference": "12",
                "registered": false
            }
        ],
        "passengersErrors": []
    },
    "errors": [],
    "success": true
}
```

Change passenger's data service

API service	passenger
Short description	Allows to change passenger's data in booking
Supported HTTP(S)-methods	PUT
Conterminous systems methods used	**Sirena:** modify

PUT passenger method

Description: allows to change passenger's personal data in booking

Implemented logic:

1. The fields "Last name", "Name" and "Middle name", "Sex", "Birth date", "Document number" it isn't allowed to change.
2. The fields "E-mail", "Phone" it is allowed to change one time.

Request format: /api/apiVersion/passenger

Request parameters

Parameter	**Mandatory**	**Description**
referenceNumber	yes	Reference to passenger
passengerType	yes	Passenger's type
surname	no	Last name
firstName	no	First name
middleName	no	Middle name
email	no	Email
phone	no	Phone
nationality	no	Nationality
sex	no	Sex
birthDate	no	Date of birth
documentNumber	no	Document number
callbackUrl	no	Url for retrieve payment status
engine	no	engine for BMM

lang	no	Interface language for the BPC payment form. Possible values: - ru - Russian; - en - English; - cn - Chinese.
redirectLang	no	Redirection language to BMM after payment. Possible values: - ru - Russian; - en - English; - zh - Chinese; - uz - Uzbek; - ky - Kyrgyz; - fr - French.
returnUrl	no	Return address after payment.

Response format

```
{
    "data": {
               "orderId": string,
        "paymentFormURL": string,
        },
    "errors": [{
        "ibeCode": number,
            "description": string,
            "messages": [{
              "code": string,
              "text": string
            }]
    }],
    "success": boolean
}
```

Response parameters

Parameter	Description

success			Sign of query execution success. If errors array is empty, field value will be set to true
data			Returned data
	orderId		Order ID
	paymentFormURL		Payment link Format: https://web.rbsuat.com/amadeuspsp/static/payment/payment.html ?orderId=<order_ID> &hash=<hash> &systemId=<system_id> &language=<language>
errors			Information about errors appeared during query execution.
	ibeCode		Error code, see EN_Attachment 1. IBE error codes
	description		Code description, see. EN_Attachment 1. IBE error codes
	messages		Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode.
		code	Sirena error code
		text	Sirena error text

Request and response examples

Description	**Request example**	**Response example**

Mandatory parameter referenceNumber is not passed	{
	"surname": "Test"
	}
		{
		"errors": [
		{
		"ibeCode": 1008,
		"description": "Data validation error.",
		"messages": [
		{
		"code": "ReferenceNumber",
		"text": "'Reference Number' should not be empty."
		}
		]
		}
		],
		"success": false
		}

Invalid value of passengerType is passed	{
	"referenceNumber": 2,
	"passengerType": 1
	}
		{
		"errors": [
		{
		"ibeCode": 1082,
		"description": "Passenger not found in reservation",
		"messages": []
		}
		],
		"success": false
		}

Valid request	Passenger in booking
	{
	"id": 12,
	"hasInfant": false,
	"referenceNumber": "12",
	"firstName": "ANTON",
	"middleName": "ANDREEVICH",
	"surname": "SAVIN",
	"passengerType": 0,
	"birthDate": "1999-10-25T00:00:00",
	"sex": 0,
	"nationality" : "RUS",
	"documentNumber":"4444111222",
	"documentExpiryDate": "2049-12-31T00:00:00",
	"email": "SOBAKA010101@MAIL.RU",
	"phone": "79531568787",
	"documentType": 0,
	"isAdult": true,
	"isChanged": false
		{
		"data": {
		"orderId": "0c42e8e6-5f91-4e04-b4d6-347d840014fa",
		"paymentFormURL": "https://web.rbsuat.com/amadeuspsp/static/payment/payment.html?orderId=0c42e8e6-5f91-4e04-b4d6-347d840014fa&systemId=mainwebst&language=ru&hash=661a02522e176c52d97d7e6436a44b3115ea8ea1bfc9ca3e10788780d1feaf09"
		},
		"errors": [],
		"success": true
		}

	}
	Request
	{
	"referenceNumber": "12",
	"passengerType": 0,
	"documentNumber": "4444111222",
	"email": "sobaka010101@mail.ru",
	"phone": "79531568786",
	"sex": 0,
	"birthDate": "1999-10-25T00:00:00Z",
	"lang": "ru",
	"redirectLang": "ru"
	}	

Contact info add service Reservation/AddContactInfo (for agents)

API service	Reservation/AddContactInfo
Short description	Allow to add contact info to a passenger or without a reference
Supported HTTP(S)-methods	POST
Conterminous systems methods used	**Sirena:** modify_pnr

POST Reservation/AddContactInfo method

Description: Allow to add email or phone number to a passenger or add contact info without reference certain passenger

You can see added contact info in the response of GET Reservation/Advanced response

Request format: /api/apiVersion/Reservation/AddContactInfo

Request parameters

Parameter		**Description**
reservationNumber		PNR of reservation
surname		Passenger's surname
contactInfo		Array with contact info
	email	Email
	phoneNumber	Phone number
	passengerReference	Reference to a passenger (optional)

Reponse format

```
{
    "errors": [{
        "ibeCode": number,
            "description": string,
            "messages": [{
              "code": string,
              "text": string
            }]
    }],
    "success": boolean
}
```

Response parameters

Parameter			**Description**
success			Sign of query execution success. If errors array is empty, field value will be set to true
errors			Information about errors appeared during query execution.
	ibeCode		Error code, see EN_Attachment 1. IBE error codes
	description		Code description, see. EN_Attachment 1. IBE error codes
	messages		Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode.
		code	Sirena error code
		text	Sirena error text

Service for retrieving SSR and remarks information /api/version/Reservation/Advanced (for agents)

API service	/Reservation/Advanced
Short description	Allows you to get all SSRs and remarks (with the RM type) that are in the booking in order to view them, as well as to put the reservations with the necessary remarks in the queue, and remove the reservations with the remarks that are not interesting for the agent from the queue
Supported HTTP(S)-methods	GET
Conterminous systems methods used	**Sirena:** order, pnr_status

POST AddSSR method

Note: method is available on ADP

Description: adds SSR to reservation

Request format: api/apiVersion/Reservation/Advanced

Request header

X-Api-Key - unique GUID of system using IBE API.

Request paramaters description

Параметр	Описание
PnrNumber	Reservation number.
TicketNumber	Ticket number, if one is used instead of PNR number, to retrieve reservation.
LastName	Passenger last name.
LastNameHash	Passenger last name hash.

Response parameters

```
{
  "data": {
    "remarks": [
      {
```

```
    "type": "string",
    "text": "string",
    "referenceNumber": "string",
    "passengerReferences": [
      "string"
    ],
    "flightReferences": [
      "string"
    ]
  }
],
"specialServiceRequests": [
  {
    "code": "string",
    "status": "string",
    "text": "string",
    "referenceNumber": "string",
    "passengerReferences": [
      "string"
    ],
    "flightReferences": [
      "string"
    ]
  }
],
"contacts": [
  {
    "email": "string",
    "phoneNumber": "string",
    "passengerReference": "string"
  }
],
"tickets": [
  {
    "number": "string",
    "passengerReference": "string",
    "flightReferences": [
      "string"
    ],
    "isInfantTicket": "true",
    "issueDate": "datetime"
  }
],
"outboundFareFamily": {
  "fareFamilyId": "integer",
  "code": "string",
  "shortCode": "string",
  "category": "string",
  "isSubsidized": "bool",
  "options": [
    {
      "code": "string",
      "category": "string",
      "order": "integer",
      "showInPopup": "bool",
      "showInSummary": "bool",
      "showInUpsell": "bool",
          "showInFareIncluded": "bool",
          "showForAdult": "bool",
          "showForInfant": "bool",
          "showInBookingCart": "bool"
        }
      ],
      "order": "integer",
      "commercialFamily": "string",
      "canRefund": "bool",
      "hasUpsale": "bool",
      "isLowCost": "bool"
    },
    "returnFareFamily": {
      "fareFamilyId": "integer",
      "code": "string",
      "shortCode": "string",
      "category": "string",
      "isSubsidized": "bool",
      "options": [
        {
          "code": "string",
          "category": "string",
          "order": "integer",
          "showInPopup": "bool",
          "showInSummary": "bool",
          "showInUpsell": "bool",
          "showInFareIncluded": "bool",
          "showForAdult": "bool",
          "showForInfant": "bool",
          "showInBookingCart": "bool"
        }
      ],
         "separateFareFamily": {
      "fareFamilyId": "integer",
      "code": "string",
      "shortCode": "string",
      "category": "string",
      "isSubsidized": "bool",
      "options": [
        {
          "code": "string",
          "category": "string",
          "order": "integer",
          "showInPopup": "bool",
          "showInSummary": "bool",
          "showInUpsell": "bool",
          "showInFareIncluded": "bool",
          "showForAdult": "bool",
          "showForInfant": "bool",
          "showInBookingCart": "bool"
        }
      ],
      "order": "integer",
      "commercialFamily": "string",
      "canRefund": "bool",
      "hasUpsale": "bool",
      "isLowCost": "bool"
```

```
},
"tsmData": [
  {
    "passengerReference": "string",
    "price": "integer",
    "referenceType": "string",
    "referenceNumber": "string"
  }
],
    "outboundBonus": {
    "bonus": "string",
    "replacedBonus": "string"
    },
"returnBonus": {
    "bonus": "string",
    "replacedBonus": "string"
    },
"appliedDiscounts": [
  {
    "flightReference": "string",
    "amount": "integer",
    "discountAmount": "integer",
    "id": "string",
    "type": "string",
    "passengerReference": "string",
    "serviceCode": "string",
    "promoNumber": "string",
    "serviceReference": "string",
    "usageType": "string",
    "promotionType": "string"
  }
],
"baseFarePrices": [
  {
    "currency": "string",
    "passengerReference": "string",
    "flightReferences": [
      "string"
    ],
    "isInfantFare": "bool",
    "totalPrice": "integer",
    "basePrice": "integer",
           "separatePrice": "integer",
    "outboundPrice": "integer",
    "returnPrice": "integer",
    "discountAmount": "integer",
           "separateDiscount": "integer",
           "outboundDiscount": "integer",
    "returnDiscount": "integer",
    "priceHidden": "bool",
    "taxDetailsInformation": [
      {
        "taxCategory": "string",
        "taxDetails": [
          {
            "rate": "string",
            "currencyCode": "string",
            "type": "string"
          }
        ]
      }
    ]
  }
],
"spentBonusesByPassengers": [
  {
    "amount": "integer",
    "commissionAmount": "integer",
    "passengerReference": "string"
  }
],
"appliedCertificates": [
  {
    "amount": "integer",
    "number": "string"
  }
],
"fareBasisCodesFlightRefs": [
  {
    "fareBasis": "string",
    "flightReferenceNumber": "string",
    "passengerReferenceNumber": "string",
            "expirationUtc": "datetime"
  }
],
"familyTrip": "bool",
"originOfficeId": "string",
"originOfficeType": "string",
"isPayForbiddenForAgency": "bool",
"foodOnBoards": [
  {
    "flightNumber": "string",
    "departureAirport": "string",
    "arrivalAirport": "string",
    "commercialFamily": "string",
    "translations": {
      "additionalProp1": "string",
      "additionalProp2": "string",
      "additionalProp3": "string"
    },
    "ru": "string",
    "en": "string",
    "zh": "string"
  }
],
"reservationRetrieveStatus": "string",
"ticketCouponStatuses": [
  {
    "ticketNumber": "string",
    "couponStatuses": {
      "additionalProp1": "string",
      "additionalProp2": "string",
      "additionalProp3": "string"
    },
        "couponStatusesBySegment": {
          "additionalProp1": "string",
          "additionalProp2": "string",
          "additionalProp3": "string"
        }
      }
    ],
    "engineType": "string",
    "isGroupReservation": "bool",
    "isCompanyGroupReservation": "bool",
    "isReceiptAvailable": "bool",
    "isInvoluntaryRefundAvailable": "bool",
    "isVoluntaryRefundAvailable": "bool",
    "informationalServices": [
      {
        "code": "string",
        "status": "string",
        "text": "string",
        "petType": "string",
        "category": "string",
        "fareAmount": integer,
        "passengerQualifier": "string",
        "passengerReference": "string",
        "flightReference": "string",
        "referenceNumber": "string",
        "packReferenceNumber": "string",
        "ticketNumber": "string",
        "finalPrice": integer,
        "price": integer,
        "discountAmount": integer,
        "amadeusErrorCode": "string",
        "amadeusErrorMessage": "string",
        "internalError": "string",
        "internalErrorMessage": "string",
        "issueDate": "datetime",
        "issuedByThirdPartyOffice": "bool",
        "serviceDuration": integer,
        "expireDateUtc": "datetime"
      }
    ],
     "journey": {
      "outboundFlights": [
        {
          "aircraft": "string",tsmData           "aircraftIataCode":
"string",
          "referenceNumber": "string",
          "origin": "string",
          "destination": "string",
          "departureDate": "datetime",
          "arrivalDateUtc": "datetime",
          "departureDateUtc": "datetime",
          "arrivalDate": "datetime",
          "flightNumber": "string",
          "classOfService": "string",
          "commercialFamily": "string",
          "operatingCarrier": "string",
          "marketingCarrier": "string",
        "codeshareName": "string",
        "flightDuration": "string",
        "stopDuration": "string",
        "techStops": [
          {
            "arrivalDateTime": "datetime",
            "departureDateTime": "datetime",
            "airportCode": "string",
            "stopDuration": "string",
            "flightDurationUntilNextStop": "string"
          }
        ],
        "flightDurationUntilNextStop": "string",
        "arrivalTerminal": "string",
        "departureTerminal": "string",
        "hash": "string",
        "statuses": [
          "string"
        ],
        "isCancelledByAirline": "bool"
      }
    ],
    "returnFlights": [
      {
        "aircraft": "string",
        "aircraftIataCode": "string",
        "referenceNumber": "string",
        "origin": "string",
        "destination": "string",
        "departureDate": "datetime",
        "arrivalDateUtc": "datetime",
        "departureDateUtc": "datetime",
        "arrivalDate": "datetime",
        "flightNumber": "string",
        "classOfService": "string",
        "commercialFamily": "string",
        "operatingCarrier": "string",
        "marketingCarrier": "string",
        "codeshareName": "string",
        "flightDuration": "string",
        "stopDuration": "string",
        "techStops": [
          {
            "arrivalDateTime": "datetime",
            "departureDateTime": "datetime",
            "airportCode": "string",
            "stopDuration": "string",
            "flightDurationUntilNextStop": "string"
          }
        ],
        "flightDurationUntilNextStop": "string",
        "arrivalTerminal": "string",
        "departureTerminal": "string",
        "hash": "string",
        "statuses": [
          "string"
        ],
    "isCancelledByAirline": "bool"
  }
],
   "separateFlights": [
  {
    "aircraft": "string",
    "aircraftIataCode": "string",
    "referenceNumber": "string",
    "origin": "string",
    "destination": "string",
    "departureDate": "datetime",
    "arrivalDateUtc": "datetime",
    "departureDateUtc": "datetime",
    "arrivalDate": "datetime",
    "flightNumber": "string",
    "classOfService": "string",
    "commercialFamily": "string",
    "operatingCarrier": "string",
    "marketingCarrier": "string",
    "codeshareName": "string",
    "flightDuration": "string",
    "stopDuration": "string",
    "techStops": [
      {
        "arrivalDateTime": "datetime",
        "departureDateTime": "datetime",
        "airportCode": "string",
        "stopDuration": "string",
        "flightDurationUntilNextStop": "string"
      }
    ],
    "flightDurationUntilNextStop": "string",
    "arrivalTerminal": "string",
    "departureTerminal": "string",
    "hash": "string",
    "statuses": [
      "string"
    ],
    "isCancelledByAirline": "bool"
  }
],
"outboundFareFamily": {
  "code": "string",
  "category": "string",
  "isSubsidized": "bool",
  "isLowCost": "bool",
  "isUnaccompaniedMinor": "bool"
},
"returnFareFamily": {
  "code": "string",
  "category": "string",
  "isSubsidized": "bool",
  "isLowCost": "bool",
  "isUnaccompaniedMinor": "bool"
},
   "separateFareFamily": {
  "code": "string",
        "category": "string",
        "isSubsidized": "bool",
        "isLowCost": "bool",
        "isUnaccompaniedMinor": "bool"
      },
      "outboundDuration": "string",
      "returnDuration": "string",
          "separateDuration": "string"
      "origin": "string",
      "destination": "string",
      "departureDate": "datetime",
      "returnDate": "datetime",
      "outboundBaggageAllowances": [
        {
          "quantity": "integer",
          "weight": "integer",
          "passengerType": "string",
                  "fareCode": "string"
        }
      ],
      "returnBaggageAllowances": [
        {
          "quantity": "integer",
          "weight": "integer",
          "passengerType": "string",
                  "fareCode": "string"
         }
      ],
          "separateBaggageAllowances": [
        {
          "quantity": "integer",
          "weight": "integer",
          "passengerType": "string",
                  "fareCode": "string"
         }
      ],
      "containsInternationalFlights": "bool"
    },
    "number": "string",
    "reservationDate": "datetime",
    "bookingTimeLimit": "datetime",
    "passengers": [
      {
        "id": "integer",
        "hasInfant": "bool",
        "referenceNumber": "string",
        "relatedAdultReferenceNumber": "string",
        "relatedInfantReferenceNumber": "string",
        "disability": {
          "isDeaf": "bool",
          "isBlind": "bool",
          "hasGuideDog": "bool",
          "assistanceType": "string",
          "wheelchairType": "string",
          "commentary": "string"
        },
        "firstName": "string",
"middleName": "string",
"surname": "string",
"passengerType": "string",
"birthDate": "datetime",
"sex": "string",
"nationality": "string",
"documentNumber": "string",
"documentExpiryDate": "datetime",
"loyaltyCard": "string",
"email": "string",
"phone": "string",
"documentType": "string",
"isAdult": "bool",
"isChanged": "bool",
"checkedIn": {
  "additionalProp1": "bool",
  "additionalProp2": "bool",
  "additionalProp3": "bool"
},
"checkInHasStarted": {
  "additionalProp1": "bool",
  "additionalProp2": "bool",
  "additionalProp3": "bool"
},
"checkedInSegment": {
  "additionalProp1": "bool",
  "additionalProp2": "bool",
  "additionalProp3": "bool"
},
"checkInHasStartedSegment": {
  "additionalProp1": "bool",
  "additionalProp2": "bool",
  "additionalProp3": "bool"
},
"hasPassengersDataErrors": "bool",
"passengerDataErrors": [
  {
    "key": "string",
    "value": "string"
  }
],
"endorsements": [
  {
    "endorsement": "bool",
    "isDisability": "bool",
    "endorsementDocNumber": "string",
    "endorsementDocDate": "datetime",
    "loyaltyPartnerCard": "string"
  }
],
       "accompanimentBookingsInfo":[
               {
               "number": string,
               "surname": string
               }
       ]
       }
```

```
],
"services": [
  {
    "code": "string",
    "status": "string",
    "text": "string",
    "petType": "string",
    "category": "string",
    "fareAmount": "integer",
    "passengerQualifier": "string",
    "passengerReference": "string",
    "flightReference": "string",
    "referenceNumber": "string",
    "packReferenceNumber": "string",
    "ticketNumber": "string",
    "finalPrice": "integer",
    "price": "integer",
    "discountAmount": "integer",
    "amadeusErrorCode": "string",
    "amadeusErrorMessage": "string",
    "internalError": "string",
    "internalErrorMessage": "string",
    "issueDate": "datetime",
    "issuedByThirdPartyOffice": "bool"
  }
],
"seats": [
  {
    "number": "integer",
    "title": "string",
    "code": "string",
    "status": "string",
    "text": "string",
    "petType": "string",
    "category": "string",
    "fareAmount": "integer",
    "passengerQualifier": "string",
    "passengerReference": "string",
    "flightReference": "string",
    "referenceNumber": "string",
    "packReferenceNumber": "string",
    "ticketNumber": "string",
    "finalPrice": "integer",
    "price": "integer",
    "discountAmount": "integer",
    "amadeusErrorCode": "string",
    "amadeusErrorMessage": "string",
    "internalError": "string",
    "internalErrorMessage": "string",
    "issueDate": "datetime",
    "issuedByThirdPartyOffice": "bool"
  }
],
"luggageSeats": [
  {
    "referenceNumber": "string",
    "passengerReference": "string"
  }
],
"insurances": [
  {
    "number": "string",
    "passengerType": "string",
    "code": "string",
    "status": "string",
    "text": "string",
    "petType": "string",
    "category": "string",
    "fareAmount": "integer",
    "passengerQualifier": "string",
    "passengerReference": "string",
    "flightReference": "string",
    "referenceNumber": "string",
    "packReferenceNumber": "string",
    "ticketNumber": "string",
    "finalPrice": "integer",
    "price": "integer",
    "discountAmount": "integer",
    "amadeusErrorCode": "string",
    "amadeusErrorMessage": "string",
    "internalError": "string",
    "internalErrorMessage": "string",
    "issueDate": "datetime",
    "issuedByThirdPartyOffice": "bool"
  }
],
"partnerProducts": [
  {
    "partnerId": "string",
    "partnerType": "string",
    "bookingStatus": "string",
    "code": "string",
    "amount": "integer",
    "currency": "string",
    "passengerReference": "string",
    "flightReference": "string",
    "isInfantProduct": "bool",
    "bookingId": "string",
    "orderId": "string",
    "preselectedOption": {
      "preselect": ""bool,
      "passengers": [
        {
          "referenceNumber": "string",
          "passengerType": "string"
        }
      ]
    },
    "compatibleProductCodes": [
      "string"
    ],
    "internalError": "string",
    "internalErrorMessage": "string"
  }
  ],
  "ticketFares": [
    {
      "referenceNumber": "string",
      "referenceQualifier": "string",
      "baseAmount": "integer",
      "totalAmount": "integer",
      "currency": "string",
      "passengerReferences": [
        {
          "referenceNumber": "string",
          "referenceQualifier": "string"
        }
      ],
      "passengerType": "string"
    }
  ],
  "ticketFaresWithoutZapOff": [
    {
      "referenceNumber": "string",
      "referenceQualifier": "string",
      "baseAmount": "integer",
      "totalAmount": "integer",
      "currency": "string",
      "passengerReferences": [
        {
          "referenceNumber": "string",
          "referenceQualifier": "string"
        }
      ],
      "passengerType": "string"
    }
  ],
  "hasSpecialConditions": "bool",
  "isRefundAvailable": "bool",
  "annulUnavailabilityReason": "string",
  "isAnnulAvailable": true,
  "isAgentReservation": true,
  "accountCode": "string",
  "tourCode": "string"
},
"errors": [
  {
    "ibeCode": "integer",
    "description": "string",
    "messages": [
      {
        "code": "string",
        "text": "string",
        "additionalInfo": {
          "ssrType": "string",
          "info": "string"
        }
      }
    ]
  }
],
  "success": "bool"
}
```

contacts block

Parameter		Description
contacts		Returned data
	email	Email
	phoneNumber	Phone number
	passengerReference	Reference to a passenger

Remarks block

Parameter		Description
remarks		Returned data
	type	Remark type (tag <type>)
	text	Content of tag freeText
	referenceNumber	Reference to a service
	passengerReferences	Reference to a passenger (if exists)
	flightReferences	Reference to a segment (is exist)

specialServiceRequests block

Parameter		Description
specialServiceRequests		Returned data
	code	SSR code (tag <type>)
	status	Status
	text	Content of tag freeText
	referenceNumber	Reference to a service
	passengerReferences	Reference to a passenger (if exists)
	flightReferences	Reference to a segment (if exists)

informationalServices block

Parameter	**Description**	**Notes**
code	Additional service code Possible values: reference codes of the add. services	
status	The status of adding the service. Example: HD service successfully added	
text	Text in ssr format for sending information. Example: DOG 1PC 8KG 45X35X25	
petType	Type of pet. Possible values: DOG, CAT, PARROT, CANARY	
category	Category of additional service Possible values: Reference codes add. services	
passengerReference	Link to the passenger for whom an additional service has been added	
flightReference	Link to the segment on which the service operates	
referenceNumber	Номер SSR. Каждой услуге соответствует уникальный номер SSR в PNR.	
price	The cost of an additional service	
issueDate	Date and time of service release.	
issuedByThirdPartyOffice	A sign that the service was issued by a third-party office in relation to the office under which the booking was issued	

Service for add SSR to reservation /api/version/Reservation/AddSSR (for agents)

API service	/Reservation/AddSSR
Short description	Service for add SSR via API IBE
Supported HTTP(S)-methods	POST

POST AddSSR methodx

Note: method is available on ADP

Description: add SSR to the reservation

You can see added SSR in GET Reservation/Advanced response

Response format: api/apiVersion/Reservation/AddSSR

Response headers

X-Api-Key - unique GUID of systems using IBE API.

Request body

```
{
  "reservationNumber": "string",
  "surname": "string",
  "ssrs": [
    {
      "code": "string",
      "passengerReference": "string",
      "segmentReference": "string",
      "freeText": "string"
    }
  ]
}
```

Request parameters

Parameter	Description
reservationNumber	Unique booking number (PNR)
surname	Passenger's surname
ssrs	SSR information object

	code	SSR code(different of selling in IBE): OTHS, WEAP, BIKE, SPEQ, DOCO, DOCA, MEDA, DEAF, BLND, DPNA, ESAN, STCR, WCBD, WCBW, WCHC, WCHR, WCHS, WCMP, WCOB, CTCR
	passengerReference	Reference number
	segmentReference	Flight segment reference
	freeText	Text

Формат ответа

```
{
    "data": {
        "ssr": [
            {
                "code": string,
                "status": string,
                "text": string,
                "referenceNumber": string,
                "passengerReferences": [
                    string
                ],
                "flightReferences": [
                    string
                ]
            }
        ]
    },
    "errors": [
         {
            "ibeCode": integer,
            "description": string,
            "messages": [
                {
                    "code": string,
                    "text": string
                }
            ]
        }
        ],
    "success": bool
}
```

Response parameter

Parameter	Description
success	Sign of query execution success. If errors array is empty, field value will be set to true
data	Returned data

	ssr		Array of SSRs that were added to the reservation
		code	SSR code
		status	SSR status
		text	freeText of SSR
		referenceNumber	SSR reference number
		passengerReference	Passenger reference number
		flightReference	Flight segment reference number
errors			Information about errors appeared during query execution
	ibeCode		Error code, see EN_Attachment 1. IBE error codes
	description		Code description, see. EN_Attachment 1. IBE error codes
	messages		Array of objects, containing errors from Sirena response. Array can be empty, it is recommended to analyse errors by ibeCode
		code	Sirena error code
		text	Sirena error text

Service of tickets rebook /api/Exchange (for agents)

API service	/Exchange
Short description	Service of tickets exchange
Supported HTTP(S)-methods	POST
Conterminous systems methods used	**Sirena:** exchange_pricing, divide_order, exchange_confirm

POST Exchange method

Note: method is available on ADP

Description: allow to make a rebook of ticket

Request format: api/apiVersion/Exchange

Request headers

X-Api-Key - unique GUID for systems using IBE API.

Request body

```
{
    "pnrNumber": string,
    "lastName": string,
    "travelParts": [
        {
            "segmentReference": string,
            "segmentReferenceLast": string,
            "fareFamily": {
                "code": string,
                "category": string,
                "isLowCost": boolean,
                "isUnaccompaniedMinor": boolean
            },
            "addFlights": [
                {
                    "origin": string,
                    "destination": string,
                    "departureDate": datetime,
                    "arrivalDate": datetime,
                    "flightNumber": string,
                    "classOfService": string,
                    "fares": [
                        {
                            "fareBasis": string,
                            "isBreakpoint": boolean,
                            "paxType": string
                        }
                    ]
                }
            ]
        }
    ],
    "passengerReferences": [
        string
    ]
}
```

Request parameters

Parameter	Description			
pnrNumber	Number of a reservation			
lastName	Passenger's lastname			
travelParts	Array with information about the flight segment		segmentReference	Reference to the flight segment
			segmentReferenceLast	Reference to the last flight segment

Parameter	Description					
fareFamily	Object with information about the fare family					
code	Tariff code					
category	Tariff category					
isLowCost	Sign of lowcost flight					
isUnaccompaniedMinor	Sign of unaccompanied child					
addFlights	An array with information about the segment to be exchanged					
origin	Departure airport					
destination	Destination airport					
departureDate	Departure date					
arrivalDate	Arrival date					
flightNumber	Number of flight					
classOfService	Information about selected tariff					
fares	Tariff information object					
fareBasis	Base fare name					
isBreakpoint	Flag identifying whether tariff ends on present segment					
paxType	Passenger type					
passengerReferences	An array of references to passengers for whom the exchange is being made					

Response format

```
{
    "data": {
        "journey": {
            "outboundFlights": [fullReservationFlight],
            "returnFlights": [fullReservationFlight],
            "outboundFareFamily": {
                "code": "string",
                "category": "string",
                "isSubsidized": "boolean",
                "isLowCost": "boolean",
                "isUnaccompaniedMinor": "boolean"
            },
            "returnFareFamily": {
                "code": "string",
                "category": "string",
                "isSubsidized": "boolean",
                "isLowCost": "boolean",
                "isUnaccompaniedMinor": "boolean"
            },
            "outboundDuration": "string",
            "returnDuration": "string",
            "origin": "string",
        "destination": "string",
        "departureDate": "datetime",
        "returnDate": "datetime",
        "outboundBaggageAllowances": [
            {
                "quantity": "integer",
                "weight": "integer",
                "passengerType": "string"
            }
        ],
        "returnBaggageAllowances": [
            {
                "quantity": "integer",
                "weight": "integer",
                "passengerType": "string"
            }
        ],
        "containsInternationalFlights": "boolean"
    },
    "number": "string",
    "reservationDate": "datetime",
    "bookingTimeLimit": "datetime",
    "passengers": [
      {
        "id": "integer",
        "hasInfant": "boolean",
        "referenceNumber": "string",
        "relatedAdultReferenceNumber": "string",
        "relatedInfantReferenceNumber": "string",
        "disability": {
          "isDeaf": "boolean",
          "isBlind": "boolean",
          "hasGuideDog": "boolean",
          "assistanceType": "string",
          "wheelchairType": "string",
          "commentary": "string"
        },
        "firstName": "string",
        "middleName": "string",
        "surname": "string",
        "passengerType": "string",
        "birthDate": "datetime",
        "sex": "string",
        "nationality": "string",
        "documentNumber": "string",
        "documentExpiryDate": "datetime",
        "loyaltyCard": "string",
        "email": "string",
        "phone": "string",
        "documentType": "string",
        "isAdult": "boolean",
        "isChanged": "boolean",
        "checkedIn": {
          "additionalProp1": "boolean",
          "additionalProp2": "boolean",
          "additionalProp3": "boolean"
        },
        "checkInHasStarted": {
          "additionalProp1": "boolean",
          "additionalProp2": "boolean",
          "additionalProp3": "boolean"
        },
        "checkedInSegment": {
          "additionalProp1": "boolean",
          "additionalProp2": "boolean",
          "additionalProp3": "boolean"
```

```
},
"checkInHasStartedSegment": {
    "additionalProp1": "boolean",
    "additionalProp2": "boolean",
    "additionalProp3": "boolean"
},
"hasPassengersDataErrors": "boolean",
"passengerDataErrors": [
    {
        "key": "string",
        "value": "string"
    }
],
"endorsements": [
    {
        "endorsement": "boolean",
        "isDisability": "boolean",
        "endorsementDocNumber": "string",
        "endorsementDocDate": "datetime",
        "loyaltyPartnerCard": "string"
    }
]
```

```
        }
    ],
    "services": [
        {
            "code": "string",
            "status": "string",
            "text": "string",
            "petType": "string",
            "category": "string",
            "fareAmount": "integer",
            "passengerQualifier": "string",
            "passengerReference": "string",
            "flightReference": "string",
            "referenceNumber": "string",
            "packReferenceNumber": "string",
            "ticketNumber": "string",
            "finalPrice": "integer",
            "price": "integer",
            "discountAmount": "integer",
            "amadeusErrorCode": "string",
            "amadeusErrorMessage": "string",
            "internalError": "string",
            "internalErrorMessage": "string",
            "issueDate": "datetime",
            "issuedByThirdPartyOffice": true
        }
    ],
    "seats": [
        {
            "number": "integer",
            "title": "string",
            "code": "string",
            "status": "string",
            "text": "string",
            "petType": "string",
            "category": "string",
            "fareAmount": "integer",
            "passengerQualifier": "string",
            "passengerReference": "string",
            "flightReference": "string",
            "referenceNumber": "string",
            "packReferenceNumber": "string",
            "ticketNumber": "string",
            "finalPrice": "integer",
            "price": "integer",
            "discountAmount": "integer",
            "amadeusErrorCode": "string",
            "amadeusErrorMessage": "string",
            "internalError": "string",
            "internalErrorMessage": "string",
            "issueDate": "datetime",
            "issuedByThirdPartyOffice": "boolean"
        }
    ],
    "luggageSeats": [
        {
            "referenceNumber": "string",
            "passengerReference": "string"
        }
    ],
    "insurances": [
        {
            "number": "string",
            "passengerType": "string",
            "code": "string",
            "status": "string",
            "text": "string",

            "petType": "string",

            "category": "string",

            "fareAmount": "integer",

            "passengerQualifier": "string",

            "passengerReference": "string",

            "flightReference": "string",

            "referenceNumber": "string",

            "packReferenceNumber": "string",

            "ticketNumber": "string",

            "finalPrice": "integer",

            "price": "integer",

            "discountAmount": "integer",

            "amadeusErrorCode": "string",

            "amadeusErrorMessage": "string",

            "internalError": "string",

            "internalErrorMessage": "string",

            "issueDate": "datetime",

            "issuedByThirdPartyOffice": "boolean"

        }

    ],

    "partnerProducts": [
        {
            "partnerId": "string",
            "partnerType": "string",
            "bookingStatus": "string",
            "code": "string",
            "amount": "integer",
            "currency": "string",
            "passengerReference": "string",
            "flightReference": "string",
            "isInfantProduct": "boolean",
            "bookingId": "string",
            "orderId": "string",
            "preselectedOption": {
              "preselect": "boolean",
              "passengers": [
                {
                  "referenceNumber": "string",
                  "passengerType": "string"
                }
              ]
            },
            "compatibleProductCodes": [
              "string"
            ],
            "internalError": "string",
            "internalErrorMessage": "string"
        }
      ],
      "ticketFares": [
        {
            "referenceNumber": "string",
            "referenceQualifier": "string",
            "baseAmount": "integer",
            "totalAmount": "integer",
            "currency": "string",
            "passengerReferences": [
              {
                "referenceNumber": "string",
                "referenceQualifier": "string"
              }
            ],
            "passengerType": "string"
        }
      ],
        "ticketFaresWithoutZapOff": [
            {
              "referenceNumber": "string",
              "referenceQualifier": "string",
              "baseAmount": "integer",
              "totalAmount": "integer",
              "currency": "string",
              "passengerReferences": [
                {
                  "referenceNumber": "string",
                  "referenceQualifier": "string"
                }
              ],
              "passengerType": "string"
            }
        ],
        "fareBasisCodesFlightRefs": [
            {
              "fareBasis": "string",
              "flightReferenceNumber": "string",
              "passengerReferenceNumber": "string",
              "expirationUtc": "datetime"
              }
        ],
        "hasSpecialConditions": "boolean",
        "isRefundAvailable": "boolean",
        "annulUnavailabilityReason": "string",
        "isAnnulAvailable": "boolean",
        "isAgentReservation": "boolean",
        "accountCode": "string",
        "tourCode": "string"
},
"errors": [
    {
        "ibeCode": "string",
        "description": "string",
        "messages": [
            {
                "code": "string",
                "text": "string",
                "additionalInfo": {
                    "ssrType": "string",
                    "info": "string"
                }
        }
      ]
    }
  ],
  "success": "boolean"
}
```

Объект fullReservationFlight

```
{
    "aircraft": string,
    "aircraftIataCode": string,
    "referenceNumber": string,
    "origin": string,
    "destination": string,
    "departureDate": datetime,
    "arrivalDate": datetime,
    "arrivalDateUtc": datetime,
    "departureDateUtc": datetime,
    "flightNumber": string,
    "classOfService": string,
    "marketingCarrier": string,
    "operatingCarrier": string,
    "flightDuration": string,
    "stopDuration": string,
    "techStops": [{
            "arrivalDateTime": datetime,
            "departureDateTime": datetime,
            "airportCode": string,
            "stopDuration": string,
            "flightDurationUntilNextStop": string
        }
    ],
    "flightDurationUntilNextStop": string,
    "arrivalTerminal": string,
    "departureTerminal": string,
    "hash": string,
    "isCancelledByAirline": boolean
}
```

Response parameters

Parameter			**Description**
success			Sign of the success of the request. If the errors array is empty, then the field value will be true.
data			The data returned by the request.
	number		New booking number. It can be either equal to the previous one, or differ in the case of a partial exchange.
	reservationDate		Date and time of booking creation Format: yyyy-MM-ddTHH:mm:ss Example: 2018-06-20T15:44:00
	bookingTimeLimit		Date and time until which the unpaid booking will exist (the rules are set by the settings in IBE)
	passengers		An array of passengerData objects with information about the passengers that were requested to be exchanged
	services		Array of objects with information about auxiliary services.
	seats		Array of objects with information about selected seats.
	insurances		Object with information about selected insurance.
	luggageSeats		An array of objects with information about luggage with separate air ticket and ssr CBBG.
		referenceNumber	The reference to CBBG luggage.

Parameter			Description
		passengerReference	The reference to passenger who added CBBG luggage. Associated with field data → passengers[n] → referenceNumber.
	partnerProducts		An array of objects with information about partner services.
	journey		Information about the new segments for which the exchange is made
		outboundFlights	An array of the fullReservationFlight objects with details of outbound flights
		outboundFareFamily	Service field, contains the fareFamily code
		returnFlights	An array of fullReservationFlight objects with detailed information about the "return" flights
		returnFareFlights	Service field, contains fareFamily code
		outboundDuration	The total duration of the flight "there"
		returnDuration	The total duration of the return flight
		origin	Initial airport of departure
		destination	Initial airport of destination
		departureDate	Departure date
		returnDate	Return date
		outboundBaggageAllowances	An array of objects containing detailed information about the baggage allowance for the outward direction

Parameter				Description
		returnBaggageAllowances		An array of objects containing detailed information about the baggage allowance for the "back" direction
		containsInternationalFlights		A sign that one of the airports is located outside the territory of the Russian Federation
	ticketFares			An array of objects with information about tariffs after applying the discount
		baseAmount		Base rate
		passengerReferences		An array of objects with links to passengers
			referenceNumber	Reference number
			referenceQualifier	Link type, for example "PA"
		passengerType		Passenger type Possible values: see Attachment. Passenger types.
		referenceNumber		Reference number
		referenceQualifier		Link type, for example "TST"
		totalAmount		The total amount of the tariff
		currency		Reservation currency
	fareBasisCodesFlightRefs			Array of objects with information about base rates
	ticketFaresWithoutZapOff			An array of objects with information about tariffs without applying a discount
		baseAmount		Base rate
		passengerReferences		An array of objects with links to passengers
			referenceNumber	Reference number
			referenceQualifier	Link type, for example "PA"

Parameter				Description
		passengerType		Passenger type Possible values: see Attachment. Passenger types
		referenceNumber		Reference number
			referenceQualifier	Link type, for example "TST"
			totalAmount	The total amount of the tariff
			currency	Reservation currency
	hasSpecialConditions			Sign of the additional conditions
	isRefundAvailable			Sign of the availability of the return
	annulUnavailabilityReason			Reason for unavailability of booking cancellation
	isAnnulAvailable			Indication of availability of booking cancellation
	accountCode			Account code
	tourCode			Tour code
errors				Information about errors that occurred during the operation of the service
	ibeCode			Error code, see Attachment. IBE error codes
	description			Error description, see Attachment. IBE error codes
	messages			An array of objects containing errors from Sirena's answer. The array may be empty, it is recommended to analyze the error by the ibeCode field
		code		Sirena error code
		text		Sirena error text

fullReservationFlight object

Parameter	Description
aircraftIataCode	IATA aircraft code
referenceNumber	Reference to the current flight segment
origin	Departure airport for the current segment
destination	Destination airport for the current segment
departureDate	Departure date and time for the current segment
arrivalDate	Arrival date and time for the current segment
arrivalDateUtc	Date and time of arrival for the current segment in UTC
departureDateUtc	Departure date and time for the current segment in UTC
flightNumber	Flight number
classOfService	Information about the selected tariff
marketingCarrier	Marketing airline For example: U6, S7
operatingCarrier	The airline actually performing the flight For example: U6, OK
techStops	An array with information about technical landings
arrivalDateTime	Date and time of arrival at the pick-up point
departureDateTime	Date and time of departure from the pick-up point
airportCode	Airport code of the stop
stopDuration	Duration of the stop
flightDurationUntilNextStop	Duration of the flight to the next stop
flightDurationUntilNextStop	Duration of the flight to the next stop
arrivalTerminal	Terminal number at the point of arrival
departureTerminal	Terminal number at the point of departure
hash	Unique hash of the flight
isCancelledByAirline	Sign of cancellation of flights by the airline

passengerData obectj

Parameter	**Description**
id	Passenger's serial number (numbered from 1)
hasInfant	An sign that this passenger has a baby
referenceNumber	Reference to this passenger in the booking
firstName	Passenger's name
middleName	Passenger's patronymic (may be absent)
surname	Passenger's surname
passengerType	Passenger type Possible values: see Attachment 2. Passenger types
isAdult	Whether the passenger is an adult true for ADT/SRC/YTH type passengers false for CHD/INF type passengers
birthDate	Date of birth
sex	Passenger gender Possible values: see dictionary "gender of passengers"
nationality	Nationality (country) Possible values: dictionary of countries
documentNumber	Document number
documentType	Document type Possible values: dictionary of document types
documentExpiryDate	Date until which the document is valid Mandatory only for a foreign passport. For other documents, +10 years from the current date is automatically set
email	Email
phone	Phone
checkedIn	Passenger check-in on flights
checkInHasStarted	Starting check-in on flights

Parameter		**Description**
hasPassengersDataErrors		The sign of errors in passengers data.
passengerDataErrors		Array with detailed information of errors in passengers data.
	key	The key.
	value	The value.

Attachments

Attachment: Dictionaries

Passenger types

paxType field value	Decryption	Passenger type
0	ADT, adult	Conventional
1	SRC, pensioner	Subsidised
2	YTH, youth	Subsidised
3	CHD, child	Conventional
4	INF, infant	Conventional
5	CNN, child	Subsidised/conventional
6	UMNR, child	Unaccompanied child
7	STR, adult	Subsidised for Far East Region
8	JNN, child	Subsidised for Far East Region
9	MIL, adult	Military Ministry of Defence of the Russian Federation (in developing)
13	INS, infant	Infant with a seat
18	MIR, adult	Military Ministry of Internal Affairs of the Russian Federation
19	MNN, child	Military
20	MNS, infant	Military
21	MML, adult	Flies with the military (in developing)

*** this type is not used when creating a reservation, it can be returned in a GET/reservation response**

Passenger sex

sex field value	Decryption

0	Male
1	Female

Document types

documentType field value	Decryption
0	Passport (general civil)
1	International passport
2	Birth certificate
3	Other type of document

Passenger assistance types

assistanceType field value	Decryption
0	Without assistance
1	Wheelchair is needed on the way to/from aircraft
2	Need assistance in getting on and off board
4	Both points 1 and 2

Wheelchair types

wheelchairType field value	Decryption
0	Manual type
1	Electric type with dry battery
2	Electric type with liquid elements battery

Auxiliary services types (a part of services are in development)

services.code field value	Category	Decryption
ABAG	luggage	First additional bag
BBAG	luggage	Second additional bag
CBAG	luggage	Third additional bag
DBAG	luggage	Additional bag 10 kg

HBAG	luggage	Extension of additional bag or default luggage (if allowed)
CHML	meal	Child meal
HTML	meal	Hot meal
MOML	meal	Muslim halal meal
SNML	meal	Sandwich meal
SFML	meal	Hot seafood
VGML	meal	Vegeterian meal
CAML	meal	Dessert
KSML	meal	Kosher
BGML	meal	Burger
AVML	meal	Vegetarian Hindu
HNML	meal	Indian Cuisine
VJML	meal	Vegetarian jain
TCML	meal	Hot breakfast
GFML	meal	Gluten free
BBML	meal	Baby meal
CPML	meal	Minced steak
MPML	meal	Salad "fitness"
GRML	meal	Greek salad
MTML	meal	Roll with chicken
UDML	meal	Poke with chicken
FTML	meal	Fish Steak Meal
ECML	meal	English Breakfast
FCML	meal	French Breakfast
ACML	meal	American Breakfast
RCML	meal	Russian Breakfast
CSML	meal	Caucasian Cuisine
RUML	meal	Russian Cuisine

ORML	meal	Asian Cuisine
MEML	meal	Italian Cuisine
GEML	meal	German Cuisine
ASML	meal	Central Asian Cuisine
PETC	pets	Pet transportation
URFL	insurance	Insurance, avia bundle
URTR	insurance	Insurance, travel bundle
SEAT	seat	Seat selection
BLOU	room	Business room
VLOU	room	VIP room
CVID	covidExpress	Rapid analysis for covid-19
XBLL	handLuggage	Hand luggage up to 10 kg in the cabin (luggage in the cabin)
XBLS	handLuggage	Additional piece of carry-on baggage up to 10 kg in the cabin
NYML	meal	New Year meal
CCML	meal	Chocolate Honey Cake
CFML	meal	Assorted macaroons
CTML	meal	Coffee and dessert
ROML	meal	HAM and CHEESE ROLL

Types of additional services supported by the engine (not sold in the engine) (in development)

Значение поля serviceCategories.code	**Категория**	**Расшифровка**
CBBG	luggage	Luggage in the aircraft cabin with a separate seat
BIKE	luggage	Bicycle in the luggage compartment
SKI	luggage	Ski equipment
BULK	luggage	Additional carry-on baggage
XBAG	luggage	Oversized baggage

Значение поля serviceCategories.code	**Категория**	**Расшифровка**
HBGS	luggage	Excess baggage
HBGT	luggage	Excess baggage
DBGS	luggage	Increase in baggage weight up to 32 kg
DBGT	luggage	Increase in baggage weight up to 32 kg
FRAG	luggage	Fragile luggage
WBAG	luggage	registration of payment for excess weight of checked baggage from 10 to 23 kg
SRXBLL	luggage	registration of payment for excess weight of hand luggage from 5 to 10 kg, not exceeding dimensions 55*40*20
SRXBLS	luggage	registration of payment for an additional piece of hand luggage weighing no more than 5 kg and not exceeding dimensions 55*40*20
MEQT	luggage	Medical equipment
WEAP	luggage	Weapon
GOLF	luggage	Golf equipment
SPEQ	luggage	Sport equipment
RVML	meal	Raw vegetarian meal
VLML	meal	Vegetarian lacto-ovo meal
VOML	meal	Vegetarian oriental meal
DBML	meal	Diabetic food
BLML	meal	Diet food
LCML	meal	Low-calorie food
FPML	meal	Fruit nutrition
LFML	meal	Low-fat meals
NLML	meal	Low lactose meals
LSML	meal	Low salt diet
NFML	meal	Fish-free meals
SPML	meal	Special meals

Значение поля serviceCategories.code	**Категория**	**Расшифровка**
JPML	meal	Japanese food
AVIH	pets	Animal in the hold
SVAN	pets	Animal in the cabin
EXST	seat	Additional free space nearby
STRQ	seat	SEAT REQUEST, Seat
GPST	seat	Group seat request, specify number and preferred location, Seat
RQST	seat	Seat request-include seat number or preference, Seat
CHNM	data	CHANGE NAME, Name change
NAMM	data	Payment of the fee for changing the name of the passenger on the ticket
NAME	data	Name - when airline holds reservation under a different name, Passanger's name change
PFEE	data	Payment of the fee for renewal at the call center
CKIN	data	Registration service
BLTW	data	Blocking the nearest seat
UMNR	other	Unaccompanied child
BUSS	other	Transfer by bus
TIME	other	Deferred payment service
WCHR	other	Wheelchair to/from the plane
WCHS	other	Wheelchair to climb/descend the airplane ladder
WCHC	other	Wheelchair for movement on the apron and the cabin of the aircraft
URFO	insurance	Avia
NSP1	insurance	Cancellation of a trip with insurance coverage of RUB 5,000
NSP2	insurance	Cancellation of a trip with insurance coverage of RUB 10000

Значение поля serviceCategories.code	Категория	Расшифровка
NSP3	insurance	Cancellation of a trip with insurance coverage of RUB 20000
NSP4	insurance	Cancellation of a trip with insurance coverage of RUB 30000
NSP5	insurance	Cancellation of a trip with insurance coverage of RUB 40000

Types of animals

services.text field value	Decryption
DOG	Dog
CAT	Cat
PARROT	Parrot
CANARY	Canary

Most widely spread Seatmap seat characteristics (in development)

characteristics field value	Decryption
1A	Seat not allowed for infant
1B	Seat not allowed for medical
1C	Seat not allowed for unaccompanied child
1D	Restricted recline seat
1W	Window seat without window
7A	In front of lavatory seat
7B	Behind lavatory seat
A	Aisle seat
AL	Seat adjacent to lavatory
B	Seat with bassinet facility
CC	Center section seat
CH	Chargeable seat

E	Exit row seat
EK	Economy comfort seat
FC	Front of cabin class/compartment
G	Seat at forward end of cabin
I	Seat suitable for adult with an infant
IE	Seat not suitable for child
J	Rear facing seat
K	Bulkhead seat
L	Leg space seat
LS	Left side of aircraft
9	Middle seat (MS in Sirena)
O	Preferential seat
P	Comfort seat
PC	Pet cabin
Q	Seat in a quiet zone
RS	Right side of aircraft
S	Smoking seat
T	Rear/Tail section of aircraft
V	Seat to be left or offered last
W	Window seat
X	No facility seat (indifferent seat)

Services statuses

Статус	**Описание**
HN	Service not confirmed
HD	Service confirmed, EMD is required
HK	Service confirmed, EMD is not required
HI	Service paid (registered)
UN	Service denied

Promocode statuses (in development)

promotionStatus field value	Decryption
0	New
1	Used
2	Sent
3	Saved
4	Received
5	Hold

Tariff options

Option code	Category	Decryption
bestSeats	availablePaid	first rows in cabin of economy class (up to 15th row) if available at the moment of registration
upTo5bonuses	bonus	Bonus Accrual up to 5%
upTo10bonuses	bonus	Bonus Accrual up to 10%
upTo15bonuses	bonus	Bonus Accrual up to 15%
flexibilityOnChangesAndCancellations	ffServices	Possibility of ticket change and cancellation
refundExchangeProhibited	ffServices	Ticket refund is prohibitted
handLuggage5kg	handBag	Hand luggage 5 kg
handLuggage15kg	handBag	Hand luggage 15 kg
oneSuitcase10kg	luggage	One suitcase 10 kg
oneSuitcase23kg	luggage	One suitcase 23 kg
oneSuitcase32kg	luggage	One suitcase 32 kg
twoSuitcase32kg	luggage	Two suitcase 32 kg
mealsOnBoard	menu	Standard meal
boarding	priorityBoarding	Priority boarding
checkin	priorityCheckIn	Priority checkin

businessClassCatering	specialMenu	Business class catering
upgradeToBusinessClass	upgradeToBusiness	Upgrade to business class
vipLounges	vipLounge	Vip lounge
twoSeatsOnRow	vipSeats	Two seats on row
vipSeats	vipSeats	Vip seats
noMealsOnBoard	menu	No meals

Main fare family categories

Category	Decryption
PR	«Promo» tariff
EC	«Econom» tariff
FL	«Premium-Econom» tariff
BS	«Business» tariff
CF	«Comfort» tariff
PL	«Promo-lightt» tariff
LC1	«Bagless» tariff
LC2	«Luggage» tariff
SOC	«Subsidised» tariff

Statuses of seats on check-in

Status	Description
0	Seat reservation cancelled
1	Seat not selected
2	The seat is reserved free during the online registration
3	The seat is reserved for a fee during online registration
41	The passenger is registered for a free seat
42	The passenger is registered for a paid seat
43	The passenger is registered by an agent
5	The seat is prepaid before registration

6	The passenger is in the process of registering for a seat
7	The seat was pre-added by the agent

Countries

Country code	Russian name	English name
ABW	Аруба	Aruba
AFG	Афганистан	Afghanistan
AGO	Ангола	Angola
AIA	Ангилья	Anguilla
ALA	Аландские острова	Åland Islands
ALB	Албания	Albania
AND	Андорра	Andorra
ARE	ОАЭ	United Arab Emirates
ARG	Аргентина	Argentina
ARM	Армения	Armenia
ASM	Американское Самоа	American Samoa
ATA	Антарктида	Antarctica
ATF	Французские Южные и Антарктические Территории	French Southern Territories
ATG	Антигуа и Барбуда	Antigua and Barbuda
AUS	Австралия	Australia
AUT	Австрия	Austria
AZE	Азербайджан	Azerbaijan
BDI	Бурунди	Burundi
BEL	Бельгия	Belgium
BEN	Бенин	Benin
BES	Бонэйр Синт-Эстатиус и Саба	Bonaire Sint Eustatius and Saba
BFA	Буркина-Фасо	Burkina Faso
BGD	Бангладеш	Bangladesh

BGR	Болгария	Bulgaria
BHR	Бахрейн	Bahrain
BHS	Багамы	Bahamas
BIH	Босния и Герцеговина	Bosnia and Herzegovina
BLM	Сен-Бартелеми	Saint Barthélemy
BLR	Белоруссия	Belarus
BLZ	Белиз	Belize
BMU	Бермуды	Bermuda
BOL	Боливия	Bolivia
BRA	Бразилия	Brazil
BRB	Барбадос	Barbados
BRN	Бруней	Brunei Darussalam
BTN	Бутан	Bhutan
BVT	Остров Буве	Bouvet Island
BWA	Ботсвана	Botswana
CAF	ЦАР	Central African Republic
CAN	Канада	Canada
CCK	Кокосовые острова	Cocos (Keeling) Islands
CHE	Швейцария	Switzerland
CHL	Чили	Chile
CHN	КНР (Китайская Народная Республика)	China
CIV	Кот-д’Ивуар	Cote D'Ivoire
CMR	Камерун	Cameroon
COD	Демократическая Республика Конго	Congo the Democratic Republic of the
COG	Республика Конго	Congo
COK	Острова Кука	Cook Islands
COL	Колумбия	Colombia
COM	Коморы	Comoros

CPV	Кабо-Верде	Cape Verde
CRI	Коста-Рика	Costa Rica
CUB	Куба	Cuba
CUW	Кюрасао	Curaçao
CXR	Остров Рождества	Christmas Island
CYM	Острова Кайман	Cayman Islands
CYP	Кипр	Cyprus
CZE	Чехия	Czech Republic
DEU	Германия	Germany
DJI	Джибути	Djibouti
DMA	Доминика	Dominica
DNK	Дания	Denmark
DOM	Доминиканская Республика	Dominican Republic
DZA	Алжир	Algeria
ECU	Эквадор	Ecuador
EGY	Египет	Egypt
ERI	Эритрея	Eritrea
ESH	САДР	Western Sahara
ESP	Испания	Spain
EST	Эстония	Estonia
ETH	Эфиопия	Ethiopia
FIN	Финляндия	Finland
FJI	Фиджи	Fiji
FLK	Фолклендские острова	Falkland Islands (Malvinas)
FRA	Франция	France
FRO	Фареры	Faroe Islands
FSM	Микронезия	Micronesia Federated States of
GAB	Габон	Gabon
GBR	Великобритания	United Kingdom

GEO	Грузия	Georgia
GGY	Гернси	Guernsey
GHA	Гана	Ghana
GIB	Гибралтар	Gibraltar
GIN	Гвинея	Guinea
GLP	Гваделупа	Guadeloupe
GMB	Гамбия	Gambia
GNB	Гвинея-Бисау	Guinea-Bissau
GNQ	Экваториальная Гвинея	Equatorial Guinea
GRC	Греция	Greece
GRD	Гренада	Grenada
GRL	Гренландия	Greenland
GTM	Гватемала	Guatemala
GUF	Гвиана	French Guiana
GUM	Гуам	Guam
GUY	Гайана	Guyana
HKG	Гонконг	Hong Kong
HMD	Херд и Макдональд	Heard Island and Mcdonald Islands
HND	Гондурас	Honduras
HRV	Хорватия	Croatia
HTI	Гаити	Haiti
HUN	Венгрия	Hungary
IDN	Индонезия	Indonesia
IMN	Остров Мэн	Isle of Man
IND	Индия	India
IOT	Британская территория в Индийском океане	British Indian Ocean Territory
IRL	Ирландия	Ireland
IRN	Иран	Iran Islamic Republic of

IRQ	Ирак	Iraq
ISL	Исландия	Iceland
ISR	Израиль	Israel
ITA	Италия	Italy
JAM	Ямайка	Jamaica
JEY	Джерси	Jersey
JOR	Иордания	Jordan
JPN	Япония	Japan
KAZ	Казахстан	Kazakhstan
KEN	Кения	Kenya
KGZ	Киргизия	Kyrgyzstan
KHM	Камбоджа	Cambodia
KIR	Кирибати	Kiribati
KNA	Сент-Китс и Невис	Saint Kitts and Nevis
KOR	Республика Корея	Korea Republic of
KWT	Кувейт	Kuwait
LAO	Лаос	Lao People's Democratic Republic
LBN	Ливан	Lebanon
LBR	Либерия	Liberia
LBY	Ливия	Libyan Arab Jamahiriya
LCA	Сент-Люсия	Saint Lucia
LIE	Лихтенштейн	Liechtenstein
LKA	Шри-Ланка	Sri Lanka
LSO	Лесото	Lesotho
LTU	Литва	Lithuania
LUX	Люксембург	Luxembourg
LVA	Латвия	Latvia
MAC	Макао	Macao

MAF	Сен-Мартен	Saint Martin (French part)
MAR	Марокко	Morocco
MCO	Монако	Monaco
MDA	Молдавия	Moldova Republic of
MDG	Мадагаскар	Madagascar
MDV	Мальдивы	Maldives
MEX	Мексика	Mexico
MHL	Маршалловы Острова	Marshall Islands
MKD	Македония	Macedonia the Former Yugoslav Republic of
MLI	Мали	Mali
MLT	Мальта	Malta
MMR	Мьянма	Myanmar
MNE	Черногория	Montenegro
MNG	Монголия	Mongolia
MNP	Северные Марианские Острова	Northern Mariana Islands
MOZ	Мозамбик	Mozambique
MRT	Мавритания	Mauritania
MSR	Монтсеррат	Montserrat
MTQ	Мартиника	Martinique
MUS	Маврикий	Mauritius
MWI	Малави	Malawi
MYS	Малайзия	Malaysia
MYT	Майотта	Mayotte
NAM	Намибия	Namibia
NCL	Новая Каледония	New Caledonia
NER	Нигер	Niger
NFK	Остров Норфолк	Norfolk Island
NGA	Нигерия	Nigeria

NIC	Никарагуа	Nicaragua
NIU	Ниуэ	Niue
NLD	Нидерланды	Netherlands
NOR	Норвегия	Norway
NPL	Непал	Nepal
NRU	Науру	Nauru
NZL	Новая Зеландия	New Zealand
OMN	Оман	Oman
OST	Южная Осетия	South Ossetia
PAK	Пакистан	Pakistan
PAN	Панама	Panama
PCN	Острова Питкэрн	Pitcairn
PER	Перу	Peru
PHL	Филиппины	Philippines
PLW	Палау	Palau
PNG	Папуа — Новая Гвинея	Papua New Guinea
POL	Польша	Poland
PRI	Пуэрто-Рико	Puerto Rico
PRK	КНДР (Корейская Народно-Демократическая Республика)	Korea Democratic People's Republic of
PRT	Португалия	Portugal
PRY	Парагвай	Paraguay
PSE	Государство Палестина	Palestinian Territory Occupied
PYF	Французская Полинезия	French Polynesia
QAT	Катар	Qatar
REU	Реюньон	Reunion
ROU	Румыния	Romania
RUS	Россия	Russian Federation
RWA	Руанда	Rwanda

SAU	Саудовская Аравия	Saudi Arabia
SDN	Судан	Sudan
SEN	Сенегал	Senegal
SGP	Сингапур	Singapore
SGS	Южная Георгия и Южные Сандвичевы Острова	South Georgia and the South Sandwich Islands
SHN	Острова Святой Елены Вознесения и Тристан-да-Кунья	Saint Helena
SJM	Шпицберген и Ян-Майен	Svalbard and Jan Mayen
SLB	Соломоновы Острова	Solomon Islands
SLE	Сьерра-Леоне	Sierra Leone
SLV	Сальвадор	El Salvador
SMR	Сан-Марино	San Marino
SOM	Сомали	Somalia
SPM	Сен-Пьер и Микелон	Saint Pierre and Miquelon
SRB	Сербия	Serbia
SSD	Южный Судан	South Sudan
STP	Сан-Томе и Принсипи	Sao Tome and Principe
SUR	Суринам	Suriname
SVK	Словакия	Slovakia
SVN	Словения	Slovenia
SWE	Швеция	Sweden
SWZ	Свазиленд	Swaziland
SXM	Синт-Мартен	Sint Maarten (Dutch part)
SYC	Сейшельские Острова	Seychelles
SYR	Сирия	Syrian Arab Republic
TCA	Теркс и Кайкос	Turks and Caicos Islands
TCD	Чад	Chad
TGO	Того	Togo
THA	Таиланд	Thailand

TJK	Таджикистан	Tajikistan
TKL	Токелау	Tokelau
TKM	Туркмения	Turkmenistan
TLS	Восточный Тимор	Timor-Leste
TON	Тонга	Tonga
TTO	Тринидад и Тобаго	Trinidad and Tobago
TUN	Тунис	Tunisia
TUR	Турция	Turkey
TUV	Тувалу	Tuvalu
TWN	Китайская Республика	Taiwan
TZA	Танзания	Tanzania United Republic of
UGA	Уганда	Uganda
UKR	Украина	Ukraine
UMI	Внешние малые острова (США)	United States Minor Outlying Islands
URY	Уругвай	Uruguay
USA	США	United States of America
UZB	Узбекистан	Uzbekistan
VAT	Ватикан	Holy See (Vatican City State)
VCT	Сент-Винсент и Гренадины	Saint Vincent and the Grenadines
VEN	Венесуэла	Venezuela
VGB	Виргинские Острова (Великобритания)	Virgin Islands British
VIR	Виргинские Острова (США)	Virgin Islands U.S.
VNM	Вьетнам	Viet Nam
VUT	Вануату	Vanuatu
WLF	Уоллис и Футуна	Wallis and Futuna
WSM	Самоа	Samoa
XKX	Косово	Kosovo
YEM	Йемен	Yemen

ZAF	ЮАР	South Africa
ZMB	Замбия	Zambia
ZWE	Зимбабве	Zimbabwe

Attachment: Main IBE error codes

Error code	Description returned by IBE	Error Description
IBE errors		
1000	Unknown IBE error	Unhandled exception, reason unknown.
1001	Operation can not be performed due to invalid reservation state	Error gets raised if certain API method was called at improper moment in booking flow. For instance if api/services method was called right after api/session (booking was not created yet)
1006	Failed to resolve timezone	Error might appear during failed attempt to refresh timezone dictionary
1007	Session pool is unable to acquire stateful session as it's expired	The engine tries to get information about the session in the Session Pool, but there is no such session.
1008	Data validation error	Validation error, might appear on all booking steps. For instance when invalid passenger data is being sent
1013	Unable to load IBE reservation context	It is not possible to get information on the open session ID of the booking engine.
1020	Failed to update or retrieve search log data	Service error. Occurs when an attempt to write logs to the database is unsuccessful.
1021	Failed to update or retrieve reservation log data	Service error. Occurs when an attempt to read logs from the database is unsuccessful.
1022	Failed connect to redis	Service error. Occurs when an attempt to connect to Redis is unsuccessful.
1084	Any Fare wasn't found by given reservation params	The error appears if the sent fare doesn't return in recommendations.
1085	Session is locked by another request	The error appears if the session is locked by another request.
1098	Airport code not found	The error appears if the airport code not found.

1500	Failed to receive exchange rates.	Unable to receive information for api/exchangerates. Method uses API CB RF for receiving of data.
1810	External system temporary unavailable	The error occurs when the SIG request circuit breaker is triggered.
1811	Total request process did not complete within the timeout	The error occurs when the total requests processing did not complete within the timeout.
2000	Unknown Connector error	Unhandled exception, unknown cause.
2200	Airports service error	Unable to receive information from api/airports method. Method uses API u6.ru for receiving of data.
2201	Airports cache is empty	API airports method did not return data
2202	Airports API returned invalid result	API airports method returned invalid data
9004	Unknown IBE error. Null Ok response.	The error occurs if the response to the request to create a booking is returned empty.
OrderInfo errors		
20000	Incorrect login or password.	Occurs when invalid login or password is passed to request.
4000	OrderInfo proxy service has failed to process request	Occurs when the proxy was unable to process the incoming request.
4100	OrderInfo service has failed to process request	The error occurs if the GOI-proxy was unable to fulfill the request.

Adding services to booking main error codes

Error code	IBE description	Error description
1000	Unknown error	Unknown error. Any error not handled by IBE.
1001	Invalid passenger or segment reference	Error appears when attempting to add service for passenger or segment not existing in booking.

Attachment: Partner's services.

Partner codes

Partner code	Title
1	Alfastrah
2	Sealine insurance
3	Service
4	Aeroexpress
7	Telemedicine
8	Baggage packing
11	Alfastrah (Anticovid)
12	Sealine (Insurance AntiVirus)
13	Business room
21	Alfamedicine

Partner types

Partner type	Decryption
1	Insurance
2	Aeroexpress
3	Medicine

Aeroexpress service codes

№	Service code	Tariff decryption
1	STANDARTOW	Standard
2	STANDARTRT	Round trip

Tariff description can be found on official Aeroexpress website: https://aeroexpress.ru/aero/prices.html

Alfastrah service codes

№	Service code	Tariff decryption

1	AVIA	Avia
2	TRAVEL	Travel
3	LUGGAGE	Luggage
4	SPORT	Sport
5	NOFLIGHT	No flight
6	AVIADYNAMIC	Avia with dynamic cost calculation
7	AVIADYNAMICBUS	Avia for Business fares with dynamic cost calculation

Tariff description https://www.uralairlines.ru/passengers-info/partner-services/insurance/

Alfastrah service codes (Anticovid)

№	Service code	Tariff decryption
1	ANTICOVID19	Anticovid Insurance for diclosure of COVID-19

Sealine service codes

№	Service code	Tariff decryption	Availablility
1	SLAVIA	Avia	Yes
2	SLAVIAPLUS	Avia+	Yes
3	SLSPORT	Sport	Yes
4	SLPROMO	Promo	Yes
5	SLTRAVEL	Travel	Yes

Sealine service codes (COVID insurance)

№	Service code	Tariff decryption
1	SLANTICOVID	Страхование АнтиВирус

Sberhealth service codes

№	Service code	Tariff decryption	Availablility
1	SBERDOC	Therapist and Pediatrician Online	Yes

№	Service code	Tariff decryption	Availablility
2	SBERVET	Veterinarian Online	Yes

Alfahealth service codes

№	Service code	Tariff decryption	Availablility
1	AFLADOC	Therapist and Pediatrician Online	Yes

Business rooms service codes

№	Service code	Tariff decryption	Availablility
1	BLN	Business room	Yes
2	VLN	VIP room	Yes

Attachment: Service SSR

IBE adds PNR SSR for technical purposes. Their type, format and purpose is displayed below.

Service SSR for discounts

SSR with information about applied discount

Description: SSR is added in tariff booking with discount

Format: DISCOUNT/DSNN/UsageType/CampaignId/LESSX.XXXX/SegmentRefernece/PassengerReference

Examples:

DISCOUNT/DS20/1/1-5KYLTGV/LESS34.6741/S12/P12

DISCOUNT/DS07/0/1-4NJKZL1/LESS6.9954/S12/P12

Field	Description	Comment
DISCOUNT	Constant	-
DSNN	DS - constant NN - discount percent	Examples: DS05, DS15
UsageType	Discount application type	Fare = 0, Order = 1,
CampaignId	CRM discount campaign unique ID	Example: 1-45RT6KP
LESSX.XXXX	X.XXXX - actual percentage of discount from base fare (taking into account the rounding of the discount amount to a multiple of 5 down)	Example: LESS6.9954 LESS34.6741
SegmentRefernece	Reference to segment	Discount applies to all segment or not applies at all. Separate SSR is added for each segment.
PassengerReference	Reference to passenger	-

SSR with information about actual amount of discoount from base fare

Format: PREVBASEDIFF/XXX

Example:

PREVBASEDIFF/305

Field	Description	Comment
PREVBASEDIFF	Constant	-
XXX	Actual amount of discount in rubles after rounding down to a multiple of 5.	-

SSR with information about "Wings" card

Description: SSR is added in tariff booking with discount

Format: type = "FQTV", text="U6XXXXXXXXXX" (max length of the field text = 18 chars)

Example: text = U61000761775

Service SSR for promo codes

Description: SSR is added when promo code is applied

Format of SSR for promo code for flight:
PROMO/Promocode/CampaignId/DSNN/LESSX.XXXX/SegmentRefernece/PassengerReference

Example: PROMO/WWJ0MTMV/1-48MLQR4/DS04/LESS3.7344/S12/P12

Field	Description	Comment
PROMO	Constant	-
Promocode	Applied promo code	Example: IBE21
CampaignId	CRM promo campaign unique ID	Example: 1-45H4OIC
DSNN	DS - constant NN - discount percent	Example: DS05, DS15
LESSX.XXXX	X.XXXX - actual percentage of discount from the base fare (taking into account the rounding of the discount amount to a multiple of 5 down)	Example: LESS3.7344

SegmentRefernece	Reference to segment	Discount applies to all segment or not applies at all. Separate SSR is added for each segment.
PassengerReference	Reference to passenger	-

Utility SSRs for partner services

Description: SSR is added when adding a partner service to the booking to send information on the partner service in an sbr file

Format:
PTR/PartnerId/ServiceId/Code/OrderId/Currency/Amount/Status/RefundAmount/PassengerReference/InfantFlag/SegmentReference/ppr

Example (Aeroexpress):
"PTR/4/65241A17717E4BEEB378B82763795A03/STANDARTOW/520501/RUB/500.00/1/0.00/P2///26250311"

Field	Description	Comment
PTR	Constant	-
PartnerId	Partner's unique identifier	Possible types described in Attachment 3.
ServiceId	Unique order's id	GUID
Code	Partner's service code	Possible types described in Attachment 3
OrderId	Order's id in partner's system	-
Currency	Currency	RUB
Amount	Service cost	Float number

Status	Service status. Possible values: NotIssued = 1, service is added to booking, awaits issuing Issued = 2, service is issued, obtained number of report document IssueFailed = 3, service is added to booking, but error appeared during service issuing Refunded = 4, service is cancelled, refund initiated	Status code number is used in remark If service status is changing old remark is deleted first, then new remark is added with new status code.
RefundAmount	Refund amount	If refund was not initiated then field value is set to 0.00
PassengerReference	Reference to passenger for whom service is provided.	If service relates to particular passengers, and not for the whole booking, then references to all corresponding passengers are added.
InfantFlag	Obtains value “I”, if service is provided for an infant.	For Aeroexpress: never filled in
SegmentReference	Reference to segment	A link to a segment is not added if the partner service is added to all segments. Currently only used for baggage packing partner. Example: S12
IssuedOffice	Ppr of the office under which the partner was added to the booking	-

Service SSRs for subsidized fares

Description: SSRs are added on subsidized fare bookings.

Format: type = "SPAX", text="SUBSIDIZED TARIFF".