API Documentation 2.0.2 NOVASOL AS

For the Brands: NOVASOL and dansommer



Contents

1 Before you start 1.1 How to work with this documentation?	5
1.2 Vacation type "Holiday Cottage"	
1.3 Check list before you start using the API	
1.4 Does and Don'ts	
1.5 Support	
1.6 Brands	
1.7 Basic Workflows of the API	
1.8 Booking Process of the API	
2 Access to API	9
2.1 API	
2.2 Character set/Encoding	. 9
2.3 User-Agent	
2.4 Authentication	. 9
2.5 Compressed response	. 9
2.6 POST	. 9
3 API-method /products	9
3.1 Parameters (GET)	. 9
3.2 Returns	
3.3 Return "error" messages	10
4 API-method /products/[specific]1	0
4.1 Parameters (GET)	
4.2 Returns	
4.3 Return "error" messages	11
5 API-method /batches1	
5.1 First request batch to create zip file	11
5.1.1 Parameters (POST)	
5.1.2 Returns	
5.1.3 Return "error" messages	
5.2 Second request to download zip file	
5.2.1 Parameters (GET)	
5.2.2 Returns	
5.2.3 Return "error" messages	12
6 API-method /available	3
6.1 Parameters (GET)	
6.2 Return	
7 API-method /available/[specific]1	4
7.1 Parameters	14
7.2 Returns	
7.3 Return "error" messages	
8 API-method /bookings (new/confirm)1	5
8.1 New booking	
8.1.1 Parameters (post)	
8.1.2 Returns	17
8.1.3 Return "error" messages	17

8.2 Update booking	17
8.2.1 Parameters (PUT)	
8.2.2 Returns	
8.2.3 Return "error" messages	
8.3 Access E-docs	
	10
9 API-method /bookings (delete)	
9.1 Parameters	
9.2 Returns	19
10 API-method /bookings (list)	
10.1 Parameters	
10.2 Returns	
11 API method /backings/[anasifis]	20
11 API-method /bookings/[specific]	
11.1 Parameters	
11.2 Returns	
11.3 Return "error" messages	
12 Rental Agreement	22
12.1 NOVASOL Rental Terms	
13 API-method /seasons	22
13.1 Parameters	
13.2 Returns	
13.2 Returns	ZZ
14 API-method /countries	
14.1 Parameters	
14.2 Returns	
	-
15 API-method /countries/[specific]	
15.1 Parameters	
15.2 Returns	
16 API-method /translate	
16.1 Parameters	
16.2 Returns	23
17 Property data	05
17 Property data	
17.1 information	
17.2 features	
17.3 location	
17.4 address	
17.5 buildings	
17.6 pictures	
17.7 media	
17.8 prices	
17.9 offers	
17.10 availabilities	
17.11 services	
17.12 concepts	35
	- -
18 PriceRules/LOS rules	

18.1 Price rules definitions	. 36
18.2 Price rule calculations	. 36
18.2.1 Week price, fixed arrival weekday	. 37
18.2.2 Rule calculations with percentage	. 37
18.2.3 Rule calculations for periods of +7 days	
18.2.4 Rule calculations for "negative" percentages	. 38
18.3 Calculation template	. 39
18.4 Last minute	. 39
18.5 Rounding rules	. 39

19 Special information	40
19.1 API weekly updates	
19.2 Currency and sales markets	
19.3 Discounts	40
19.4 Winther rule destination Denmark	40

20 Booking batch	
20.1 Parameters	
20.1 Parameters returns	
20.2 GET bookingbatch	
99 Document Version Control	

API	documentation
Ver.	1.19.4

1 Before you start

This documentation describes how to use the data provided by NOVASOL and dansommer via API. This is a real time communication between your servers and the NOVASOL servers with access to download full property information, search availability, verify prices, booking interaction and more.

1.1 How to work with this documentation?

- Get the latest update by contacting us at <u>partner@novasol.com</u> or visit our website (Link will be ready during Aug2021)
- The number "1234567" has to be replaced with your agency number.
- Sales market parameter requires ISO-Code (ISO 3166-1 numeric-3).
 2 special codes are for Germany where we use the old West Germany ISO 280 and for language English and currency EUR were we use 999 (what we call international).
- Additional to this documentation we provide following helpful documents. All documents are available on request via partner@novasol.com
 - Data structure of our API
 - o ISO Country Code List of all ISO codes used in our API
 - Error Codes List of all errors coming from our backend system
- NOVASOL is using the terms "sales countries/sales markets" for those countries where vacation in holiday cottages are sold actively. In these countries or markets NOVASOL is present with its own sales office and provides the house data in the native language and currency.

The term "product country" is used for destinations where NOVASOL is renting out holiday cottages.

1.2 Vacation type "Holiday Cottage"

Be aware of the differences of the Holiday Cottage travel branch compared to hotel, flights or travel packages

- Each object has a fix price for the period
- On arrival the owner/housekeeper may ask for a deposit from the customer. This is generally not a part of the booking and differs from property and destination.
- There is always self-catering at a holiday cottage. Distance to restaurants or supermarkets from each house, is a part of the property data.
- The final cleaning, if not included in the rental price, is in the customer responsibility. Read more about special rules for final cleaning under Point 3.5.3.
- A NOVASOL season is equal to a calendar year. The first days of January of the following year are always bookable in connection with a Christmas / New Year's break starting in December. New seasons are released per product country. Each season has its own set of data and most calls require the parameter <Season>YYYY</Season>.

Based on the history of NOVASOL you will find more services and offers on Danish products than on other European products. The expression "For all European houses" does not include Danish houses.

1.3 Check list before you start using the API.

To be able to use the API you need:

- 1. An agency contract with NOVASOL AS in signed version.
- 2. A valid NOVASOL agency number.

- 3. If you want to sell in different languages and different currencies, you need one agency number per language and currency.
- 4. We need to enable all your IP addresses which need to have access to our server.
- 5. You need a header key to gain access to our server. This key is provided when registering your IP address.

In case you miss one of the above please contact us at partner@novasol.com or at Novasol.helpserve.com

1.4 Does and Don'ts

In order to have a smoothly running system and a good cooperation with you we would like you to consider following guidelines.

Best practice for updates / traffic to our server

- One time update (once a night or few times a week) = download a full batch file + import of the translations using the translation request
- Once or twice during the day = batch request using parameter "LastChange"
- Every 3-4 hours = Batch request using parameter "LastChange" for "Availabilities & Prices" This will ensure up-todate data on your system.

Testing (API data and data on our website)

The data in the API is the same as on our website. Both ends are using the same communication to our backend. To reduce the traffic on our websites we kindly ask you not to crawl our websites. Our system administration will blacklist IP addresses causing high traffic on domains not connected to the API.

Images

We offer the URL's to all our images in the API. Within each image tag is a time stamp of the last update. This is the indicator if the image is updated.

1.5 Support

Administrative Support

Please contact our partner support in regards to all questions regarding your contract, commission etc.: partner@novasol.com

Technical Support:

Please use our email partner@novasol.com

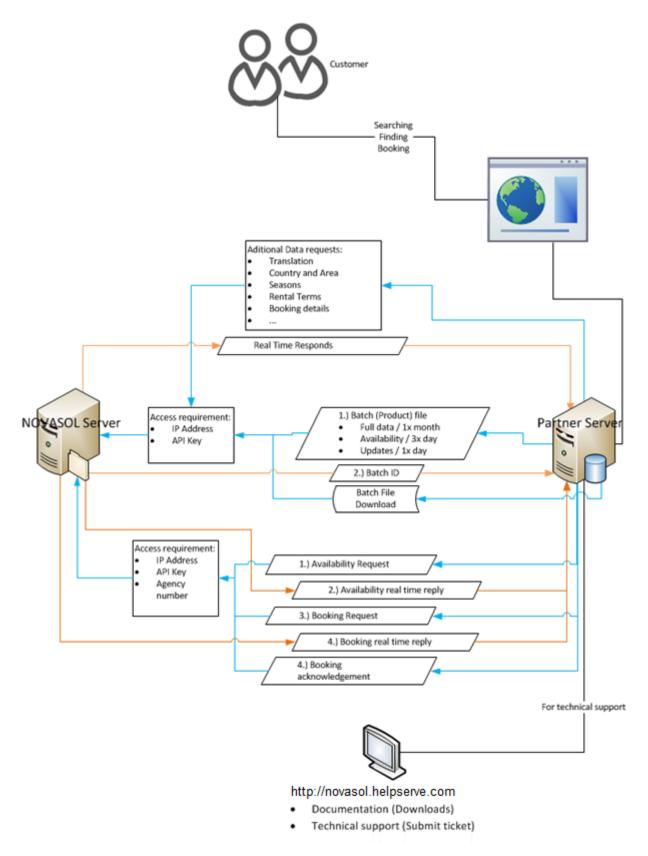
1.6 Brands

NOVASOL

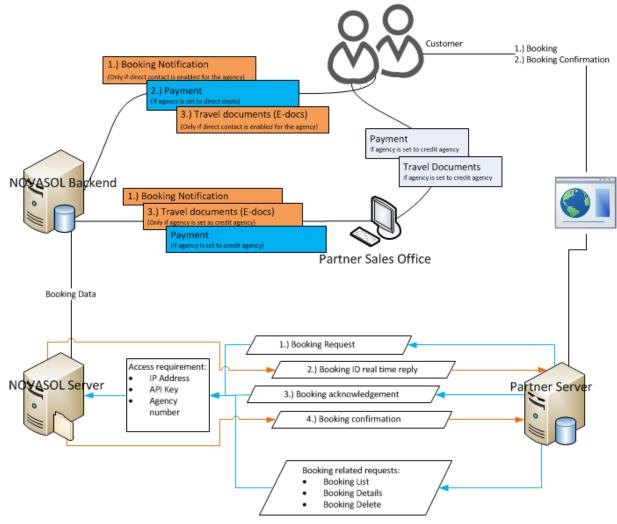
Using NOVASOL as company you will get all properties sold under the brand NOVASOL. This is the main portfolio and contains all product markets. You have to use the brand NOVASOL on these properties when placing the booking. **dansommer**

dansommer is specialized in Denmark. You will get a different range of properties in Denmark than for NOVASOL. You have to use the brand dansommer on these properties when placing the booking.

1.7 Basic Workflows of the API



1.8 Booking Process of the API



2 Access to API

2.1 API

The API is located at https://partnerapi.novasol.com/api/

2.2 Character set/Encoding

The API is using UTF-8 encoding.

2.3 User-Agent

Please use an identifiable User-Agent header on all requests (this should include your company name and if possible your agency number). This helps our logging and reduces the risk of you getting banned.

Use common sense when deciding how many calls to make. For example, if you're making a web application, try not to hit the API on page load. Your account may be suspended if your application is continuously making several calls per second.

2.4 Authentication

Besides having an active agency number and us having registered your IP address you will receive a token that needs to be included in the header on each request.

2.5 Compressed response

To reduce the download time of large calls you can add the header "accept-encoding" with a value of "gzip". By doing so you will get a gzipped response back that you will then have to manually decompress. Whether or not this is worthwhile depends on the speed of your network connection.

2.6 POST

When performing POST-request please insert parameters in payload/body as for example: agency=12345678&arrival=2019507&departure=20190514....

3 API-method /products

This request asks for a list of products. A product list can focused on different search criteria's. These are listed under 3.1 Parameters. If no criteria are used, full list of properties from current season will be returned. Use GET method with "/products" request.

https://partnerapi.novasol.com/api/products https://partnerapi.novasol.com/api/products?country=208&salesmarket=826&product=NOV

3.1 Parameters (GET)

Parameter company	Rule optional	Format Alpha	Description NOV=novasol, DAN=dansommer Leaving this field empty return all available properties across all brands.
salesmarket	optional	ISO 3166-1 numeric-3	
country	optional	ISO 3166-1 numeric-3	destination, property location
season	optional	YYYY	If not set default is set to current season
area	optional	alpha numeric	NOVASOL area code (example: ITA for Tuscany)
concept	optional	alpha numeric	return properties with specific concepts (6 character codes)
quality	optional	Numeric	number of stars 1-5 where 5 is best
type	optional	Alpha	property type, either h=house or a=apartment
park	optional	Numeric	Properties located in a holiday house park; 5 digits park number

people	optional	Numeric	Number of people (adults + children) standard search is 1-30 with >30.
offer	optional	Alpha	"lastminute"=request only last minute offers
pets	optional	Boolean	true=pets allowed, false=pets not allowed
sleepingrooms	optional	Numeric	Number of sleeping rooms
bathrooms	optional	Numeric	Number of bathrooms
distwater	optional	Numeric	distance to water (not necessary beach / ocean)
swimmingpool	optional	Boolean	true=swimmingpool, false=no swimmingpool
agency	optional	Numeric	7 digit agency number only needed when using the URL to house presentation.

3.2 Returns

Parameter	Format	Description
number	alpha numberic	house number
country	ISO 3166-1 numeric-3	product country code
area	3 letter/digit code	area code
location	alpha	Name of location, place, village or city of property
adults	numeric	Maximum number of adults
children	numeric	Maximum number of children
quality	numeric	number of stars 1-5, 5 is best
petsAllowed	Y=yes, N=no	Y or N to pets
swimmingPool	Y=yes, N=no	Y or N to swimmingpool available
spa	Y=yes, N=no	Y or N to spa available
distanceToWater	numeric	distance to water (not necessary beach / ocean)
thumbnail	URL	url to thumbnail picture, size 146x90 pixel
url	URL	url to property presentation on consumer website (of NOVASOL or dansommer), including agency number and other needed parameters. Default sales market is set to novasol.com.
coordinate	wsg84	location of property as longitude and latitude, split by ":"

3.3 Return "error" messages

200 : OK

- 400 : Bad request, syntax must be wrong, please read documentation
- 401 : Unauthorized
- 404 : Not found, temporally error
- 405 : Method not allowed, use correct method instead
- 408 : Time out

4 API-method /products/[specific]

Request information about specific product. Call "/products/[property ID]" using GET.

https://partnerapi.novasol.com/api/products/C17500?salesmarket=208&season=2019 https://partnerapi.novasol.com/api/products/A4008?salesmarket=208&season=2019 https://partnerapi.novasol.com/api/products/CIV260?salesmarket=826&season=2019

4.1 Parameters (GET)

Parameter	Rule	Format	Description
property ID	mandatory	alpha numeric	The property ID of the NOVASOL or dansommer unit
salesmarket season	mandatory mandatory	ISO 3166-1 numeric-3 YYYY	
sections	optional	Alpha	Default will return all sections. Specify one or more data sections. This could be: information, features, location, buildings, address, media,

showDescript option Boolean ions

prices, offers, availability, services and concepts. Split each value using ":". Show text descriptions with facilities, buildings and services

4.2 Returns

The return contains all data of the requested property. Please look at "18 Property data" to see specific information about the data structure.

4.3 Return "error" messages

200 : OK

- 400 : Bad request, syntax must be wrong, please read documentation
- 401 : Unauthorized
- 404 : Not found, temporally error
- 405 : Method not allowed, use correct method instead
- 408 : Time out

5 API-method /batches

Batch is used for requesting large volumes of data, for example to import the full data package on to your server or when updating your database. We choose the batch file to give you the flexibility in requesting the data you need.

IMPORTANT: Every batch request is creating a new data file. To create a file may take up to 60 minutes depending on the size of data requested. Requests of batch files are queued. Each request fills up the queue which leads to delays in producing the batch files for you and other partner. Please avoid frequent requests on a minute basis. The batch download is done with 2 API-calls:

- Creating a zip file with requested product data
 - 2. Download the created zip file

https://partnerapi.novasol.com/api/batches

5.1 First request batch to create zip file

5.1.1 Parameters (POST)

Parameter	Rule	Format	Description
lastchange	optional	YYYYMMDD or YYYYMMDD HHMM	Date or date and time for last update of property/section; if specified only properties with updated sections after the last update date and time will be returned.
sections	optional	Alpha	Default will return all sections. Specify one or more data sections. This could be: information, features, location, buildings, address, media (contains pictures and text), prices, offers, availability, services and concepts. Split each value using ":".
company	optional	Alpha	NOV=novasol, DAN=dansommer
salesmarket	optional	ISO 3166-1 numeric-3	Data for multiple sales markets can be requested. Split ISO code using ":" (Example:208:280:528)
season	mandatory	YYYY	If not set default is set to current season
country	optional	ISO 3166-1 numeric-3	destination, property location
area	optional	alpha numeric	NOVASOL area code (example: ITA for Tuscany)
concept	optional	alpha numeric	return properties with specific concepts (6 character codes)
quality	optional	numeric	number of stars 1-5 where 5 is best

optional optional	alpha numeric	property type, either h=house or a=apartment Properties located in a holiday house park; 5 digits park number
optional	numeric	Number of people (adults+children) Standard search is 1-30 with >30.
optional	alpha	lastminute=request only lastminute offers
optional	boolean	true=yes to pets, false=no to pets
optional	numeric	Number of sleeping rooms
optional	numeric	Number of bathrooms
optional	numeric	distance to water (not necessary beach / ocean)
optional	boolean	true=swimmingpool, false=no swimmingpool
option	Boolean	Show text descriptions with facilities, buildings and services.
mandatory	URL	 TIP: This parameter can<u>not</u> be used in connection with "lastchange" parameter. URL of your server. When the batch file is ready to download a POST request is send to the specified URL including the batch ID.
	optional optional optional optional optional optional optional option	optional numeric optional numeric optional alpha optional boolean optional numeric optional numeric optional numeric optional boolean option Boolean

5.1.2 Returns

Parameter	Format	Description
Batchid	numeric	identification of batch file

5.1.3 Return "error" messages

200 : OK

400 : Bad request, syntax must be wrong, please read documentation

401 : Unauthorized

404 : Not found, temporally error

405 : Method not allowed, use correct method instead

408 : Time out

5.2 Second request to download zip file

The batch download is done using a GET request including batch id. Note: It may take up to 60 minutes before the file is available for download on our server. The created batch file is automatically deleted after 24 hour after creation.

https://partnerapi.novasol.com/api/batches/28766483883

5.2.1 Parameters (GET)

Parameter Rule batchid mandatory

Format numeric

Description batch identification code which is returned on the first request

5.2.2 Returns

Requested zip file

5.2.3 Return "error" messages

200 : OK

400 : Bad request, syntax must be wrong, please read documentation

- 401 : Unauthorized
- 404 : Not found, temporally error
- 405 : Method not allowed, use correct method instead

408 : Time out

6 API-method /available

Request available properties based on arrival/departure and other search criteria's or verify availability for one or multiple units. For each returned property a few important information are included. Call "/available" using GET method.

https://partnerapi.novasol.com/api/available?country=280&company=nov&arrival=20190618&departure=20190625&salesmarket=280&adults=3

6.1 Parameters (GET)

Parameter	Rule	Format	Description
return	optional	Numeric	Number of properties to be returned with one request
	-1	(default = 20)	in the range from 1 to 40 properties.
next	optional	Alpha numeric	paging functionality, insert returned "next" value to
			request next list of properties
company	mandatory	Alpha	nov=novasol, dan=dansommer
salesmarket	mandatory	ISO 3166-1	To specify language and currency
		numeric-3	
season	optional	YYYY	If not set default is set to current season
country	mandatory	ISO 3166-1	Destination, property location
		numeric-3	
area	optional	Alpha numeric	Area code (example: ITA for Tuscany). Multiple area
			codes are possible. Split area codes using ":". See 16
			for possible area codes.
adults	mandatory	numeric	number of adults as 1 to 30, 1 is minimum number of
			adults
children	optional	numeric	number of children as 0 to 20
CHILLIEN	•		
rooms	optional	numeric	number of sleeping rooms as 1 to 20
arrival	mandatory	YYYYMMDD	Arrival date
departure	mandatory	YYYYMMDD	Departure date
flexible	optional	Y/N	flexible arrival / departure day, +/- 3 days
minprice	optional	numeric	minimum price in sales market currency
maxprice	optional	numeric	maximum price in sales market currency
quality	optional	numeric	number of stars as 1 to 5 where 5 is best quality
type	optional	Alpha Y/N	property type, either H=holiday house or A=apartment
pets swimmingpool	optional optional	Y/N	Y or N to pets allowed in property Y or N to indoor or outdoor swimmingpool
indoorpool	optional	Y/N	Y or N to indoor swimmingpool (typical properties
Indecipeer	optional	171	Denmark)
outdoorpool	optional	Y/N	Y or N to outdoor swimmingpool (typical properties in
outdoorpoor	optional	.,	south Europe)
spa	optional	Y/N	
•	,		Y or N to spa/whirlpool
sauna	optional	Y/N	Y or N to sauna
solarium	optional	Y/N	Y or N to solarium
fireplace	optional	Y/N	Y or N to fireplace (mostlikly wood burning stove)
tv	optional	Y/N	Y or N to television (not necessary with international
			channels)
boat	optional	Y/N	Y or N to boat rentable or free of charge
washmachine	optional	Y/N	Y or N to washmachine
dishwasher	optional	Y/N	Y or N to dishwasher
freezer	optional	Y/N	Y or N to freezer
nonsmoker	optional	Y/N	Y to smoking not allowed in property
internet	optional	Y/N	Y or N to free or paid internet access
aircondition	optional	Y/N	Y or N to air condition (not necessary in the whole
-Betweet			property)
distwater	optional	numeric	distance to water (not necessary beach / ocean)
waterpark	optional	Y/N	Y or N to free access to waterpark (only in product
aolf	ontional	V/N	country Denmark)
golf	optional	Y/N	Y or N to nearby golf course

park	optional	numeric	Properties located in holiday house parks. 5 digit park
			code

6.2 Return

Parameter	Format	Description
message	Text	Text is in the requested sales market language
- id	Numeric	3 digit message ID
next	alpha numeric	property id of next property, used for next page request
property		separator for listed properties
propertyid	alpha numeric	property number
country	ISO 3166-1 numeric-3	product country code
area	alpha numeric	NOVASOL area code (example: ITA for Tuscany). See 16 for more information about area codes
location	alpha	name of location (place, village, city)
available	numeric	1=booking, 5=on request
arrival	YYYYMMDD	date of arrival
departure	YYYYMMDD	date of departure
price	numeric	Rental price including all mandatory costs needed to be shown to the customer before booking. Some costs are paid on arrival.
discount	numeric	if discount available, amount of discount is returned here
currency	ISO 4217 alpha-3	sales market currency
adults	numeric	maximum number of adults allowed in this property (1-30)
children	numeric	maximum number of children allowed in this property as add-on to the adults. (1-20)
quality	numeric	number of stars 1-5, 5 is best
pets	boolean	Pets allowed in the holiday house
swimmingpool	boolean	Swimming pool available
spa	boolean	Boolean to spa available
distwater	numeric	distance to water (not necessary beach / ocean)
thumbnail	URL	URL to thumbnail picture, size 146x90 pixel
url	URL	URL to property presentation on consumer website of NOVASOL or dansommer including agency number and other needed parameters
wsg84long	wsg84	longitude of location of property
wsg84lat	wsg84	latitude of location of property

7 API-method /available/[specific]

Verify availability and price on a specific property. Use method GET.

Good idea when to use this method:

Use this method before starting the booking process. This will verify or return the correct price and if property is still available.

https://partnerapi.novasol.com/api/available/C17500?agency=1234567&company=nov&salesmarket=999&arrival=20190107&departure=20190108&adu lts=2

7.1 Parameters

Property ID is add	led as part of the	URL with a "/"	
Parameter	Rule	Format	Description
Agency	mandatory	numeric	7 digit agency number
Company	mandatory	Alpha	nov=novasol, dan=dansommer
Salesmarket	mandatory	ISO 3166-1 numeric-3	To specify language and currency
Arrival	mandatory	YYYYMMDD	Arrival date
Departure	mandatory	YYYYMMDD	Departure date

Adults	mandatory	numeric	number of adults (1-30), 1 is minimum number of adults
Children	optional	numeric	number of children (1-20)
Pets	optional	Y/N	Pets allowed or not (error message if value does not match house criteria)
Showrentalterms	Optional	=true =false	The rental terms URL is included in the reply The rental terms URL is <u>not</u> included in the reply
Showservices	Optional	=true =false	The offered extraservices are included in the reply The offered extraservices are <u>not</u> included in the reply

7.2 Returns

Parameter	Format	Description
Message	text	Text in language of requested sales market
- id	numeric	3 digit message ID
Propertyid	text	ID of property
Available	Boolean	Information about the availability of the property
Request	Boolean	Information if property is on request. If true the action has to be completed manually by the local NOVASOL sales office.
Altarrival	Boolean	Information if the returned date is the requested or an alternative date
Arrival	YYYYMMDD	Arrival date (requested or alternative date)
Departure	YYYYMMDD	Departure date (requested or alternative date)
price	numeric	Rental price including all mandatory costs needed to be shown to the customer before booking.
bookingprice	numeric	Amount paid with the booking. The value of this parameter is used in the "price" parameter of the booking request.
Discount	Numeric	Amount of discount if any (is already deducted from rental price)
Currency	ISO 4217 alpha-3	Currency of the price given in 3 letter code
SpecialOfferCode	Numeric	Value defines the kind of offer for the discounted price. Available codes: 1=Last minute
		2=Special Discount set individually on houses
		7=Daily Price 8=Mini vacation
		9=Spar vacation
		(NOTE: There is no description available in the data feed!)
paymentid	Numeric	Identifier for first or second payment.
paymentdate	YYYYMMDD	Due date for payment
amount	Numeric	Amount of payment in the same currency as the price value

7.3 Return "error" messages

200 : OK

400 : Bad request, syntax must be wrong, please read documentation

401 : Unauthorized

- 404 : Not found, temporally error
- 405 : Method not allowed, use correct method instead
- 408 : Time out

8 API-method /bookings (new/confirm)

A booking is created in two steps

1.) In step one data on booking is posted to "/bookings" and a booking number is returned.

2.) Step two is to confirm booking by updating booking with action=acknowledge.

Note: We recommend checking the availability and the price for the property and the period selected by the customer before starting the booking process. Use the method availability/[specific] for this check.

Minimum days before arrival:

- You can book all houses until 15:59:59 CET with arrival the day after.
 - Please note if the property is on request, the period needs to be requested by our call center and therefore cannot be booked straight away.

8.1 New booking

Create a new booking or option by posting booking data to "/bookings". The booking number is returned. The booking needs to be acknowledged to complete the booking in our system. If the booking is not acknowledged, it will be deleted the next morning.

IMPORTANT: If no e-mail is sent from NOVASOL to the customer automatically, it is the agencies responsibility sending e-docs to the customer. This is depending on the contract and the settings in our backend system.

https://partnerapi.novasol.com/api/bookings?agency=1234567&type=booking&company=dan&salesmarket=208&propertyid=a4008&arrival=20190402& departure=20190409&price=3848&adults=4&children=2&title=Hr.&firstname=Ole&lastname=Hansen&street=Holstedvej&streetnumber=23&zip=3900&e mail=ole@hansen.dk&custcountry=208&extra=8003-1:8028-5&test=true

Parameter	Rule	Format	Description
Agency	mandatory	7 digit numeric	agency number
Туре	mandatory	alpha	Possible values: booking, option
			Option = 3 day option, check "optiondate" for more information
Company	mandatory	alpha	nov=novasol or dan=dansommer; Dansommer is only relevant
			for properties in Denmark.
salesmarket	mandatory	ISO 3166-1	Controls language and currency of this booking
		numeric-3	
Propertyid	mandatory	alpha numeric	Property number of NOVASOL or Dansommer unit. Use
			capital letters in the property id.
Arrival	mandatory	YYYYMMDD	Arrival date
Departure	mandatory	YYYYMMDD	Departure date
Price	mandatory		Rental price for selected period, price has to be correct,
			otherwise booking will not be created. The price includes all
			services and extra costs which are paid before arrival and to
			NOVASOL.
Adults	mandatory	numeric	number of adults. This parameter can have influence on the
			price verification.
Children	optional	numeric	number of children. This parameter can have influence on the
_			price verification.
Pets	optional	numeric	Amount of pets cannot be greater than the number allowed in
			the property. Check parameter <allowedpetcount> in products</allowedpetcount>
			under information.
Title	optional	text	customers title
Firstname	optional	text	customers first name
Lastname	mandatory	text	customers last name
Street	mandatory	text .	customers street name
streetnumber	mandatory	numeric	customers street number max 5 digits
floor	optional	alpha / numeric	customer floor max 5 characters or digits
location	optional	text	customers location / area / address extension
zip	mandatory	alpha numeric	customers zip code
city	mandatory	text	customers city name
custcountry	mandatory	ISO 3166-1	customers country, this automatically creates the country letter
		numeric-3	in front of the zip code.
phone	mandatory	numeric	customers phone number (We suggest to post the mobile as
mobile	ontional	numorio	phone)
mobile	optional	numeric	customers mobile phone number (We suggest to post the
o mo o il	mondatory (a maail	mobile as phone)
email	mandatory	email	customers e-mail address, please note Alias emails are not
bankid	ontional	numorio	accepted.
Dalikiu	optional	numeric	Customers bank number. This is only for German market and can be used for payment via "Lastschrift"/ELV.
			can be used for payment via Lasischinit /ELV.

8.1.1 Parameters (post)

bankaccount	optional	numeric	Customers account number. Is only for German market and can be used for payment via "Lastschrift"/ELV.
ibannumber swiftnumber external	optional optional optional	alpha / numeric alpha Text	Customers IBAN number for bank transfer Customer SWIFT number for bank transfer external text for booking record (max 120 characters). Please note that this field cannot be used for dependencies. When the field is used by customers you have to make sure that the message is followed up on. A good idea would be to set the booking as option and send a notification to your booking service to have the matter cleared.
subgroup	optional	alpha numeric	10 character code for use by partner to group or identify bookings. This is for agency information only. The information is only stated on the commission recipe or booking list. We suggest you to post your booking reference as subgroup
document	mandatory	boolean	true=electronic documents (PDF)
extra	optional	alpha numeric	Ordering extra services for properties located in Denmark using the value of "serviceID" and number of units separated with "-"(for example 8003-5), split multiple extra services by ":" (for example 8003-10:8023-8) Extra services can only be ordered with the booking if parameter Service Type = 0 or 1. Owner Extra Service cannot
test	optional	boolean	be paid or ordered with the booking. "true" will create a test booking. Using this parameter, the booking will be registered in our test system. You will get an API reply but the booking will not be visible in any other system.

8.1.2 Returns

Parameter	Format	Description
message	Text	Text in language of requested sales market
- id	numeric	3 digit message ID
bookingNumber	numeric	7 digit booking number. No number is returned if error occurred.

8.1.3 Return "error" messages

200 : OK

400 : Bad request, syntax must be wrong, please read documentation

401 : Unauthorized

404 : Not found, temporally error

405 : Method not allowed, use correct method instead

408 : Time out

8.2 Update booking

There are 2 booking update actions. First a booking can be acknowledged: this registers the transaction as a booking in the NOVASOL system. Second an option can be turned into a fixed booking. Use method PUT.

https://partnerapi.novasol.com/api/bookings/1853623? action = acknowledge & company = dan & sales market = 208 & agency = 1234567 & user = RALF83 & test = true action = acknowledge & company = dan & sales market = 208 & agency = 1234567 & user = RALF83 & test = true acknowledge & company = dan & sales market = 208 & agency = 1234567 & user = RALF83 & test = true acknowledge & company = dan & sales market = 208 & agency = 1234567 & user = RALF83 & test = true acknowledge & company = dan & sales market = 208 & agency = 1234567 & user = RALF83 & test = true acknowledge & test = t

8.2.1 Parameters (PUT)

Parameter	Rule	Format
bookingid	mandatory	numeric
company	mandatory	alpha

Description

7 digit booking number. The number is send on /bookings return nov=novasol or dan=dansommer

salesmarket	mandatory	ISO 3166-1	
		numeric-3	
agency	mandatory	7 digit number	
user	mandatory	alpha numeric	Agency employee's id or system id. Only shown on the
			commission receipt when a user confirmed a option
test	optional	boolean	Used when sending test bookings
action	mandatory		To acknowledge booking or option request use "acknowledge"
	,		To change an option into a booking use "confirm"

8.2.2 Returns

Parameter	Format	Description
message	Text	Text in language of requested sales market
- id	numeric	3 digit message ID
bookingNumber	numeric	7 digit booking number. No number is returned if error occurred.

8.2.3 Return "error" messages

200 : OK

- 400 : Bad request, syntax must be wrong, please read documentation
- 401 : Unauthorized
- 404 : Not found, temporally error
- 405 : Method not allowed, use correct method instead
- 408 : Time out

8.3 Access E-docs

E-docs can be retrieved in 3 different ways. The documents are first available on full payment. For agencies set to credit agency the e-docs are available right away.

To get e-docs it is required to send parameter "documents=true" on booking request.

- 1) Log into NOVASOL agency login where e-docs can be downloaded from the booking list page. https://safe.novasol.com/agency?L=999
- 2) Download e-docs using URL

Insert the customer data and select L=ISO-code to retrieve the travel documents in a different language than the sales market language.

- a. Route description: https://edoc.novasol.com/route?H=[House ID]&E=[customer e-mail address]&B=[booking number]&L=[ISO-code]
- b. Travel voucher:

https://edoc.novasol.com//voucher?H=[House ID]&E=[customer e-mail address]&B=[booking number]&L=[ISO-code]

3) Send customer to NOVASOL MyBooking page

Without email parameter (customer must type this in manually) https://mybooking.novasol.com/[ISO of sales market]?reservationNumber=[booking number]&houseNumber=[House ID]

or

With SHA-1 hashed HEX representation of the lowercased email address https://mybooking.novasol.com/[ISO of sales market]?reservationNumber=[booking number]&houseNumber=[House ID] &hashedKey=[Hashed email

9 API-method /bookings (delete)

Delete acknowledged booking or option. Use method DELETE. It is also possible to delete test bookings.

Please notice that there can be a cancellation fee involved in deleting. To see cancellation fee before performing deletion it can be retrieved using /bookings/[specific] call.

https://partnerapi.novasol.com/api/bookings/1853623?company=dan&salesmarket=208&agency=1234567&propertyid=C17500&user=JDHL22&test=tru e

9.1 Parameters

Booking number is added as part of the URL with a "/"

Parameter	Rule	Format	Description
Agency	mandatory	numeric	7 digit agency number
Company	mandatory	Alpha	nov=novasol, dan=dansommer
Salesmarket	mandatory	ISO 3166-1 numeric-3	To specify language and currency
PropertyID	mandatory	Alpha	ID of property
User	mandatory	Alpha	User name (internal use)
Test	optional	Boolean	Access to delete test bookings

9.2 Returns

Parameter	Format	Description
bookingNumber	numeric	7 digit booking ID
Message	Text	Text in language of requested sales market
- id	numeric	3 digit message ID
cancellationfee	numeric	ID of property
- currency	Alpha	Currency ID

10 API-method /bookings (list)

Request a list of bookings. Use method GET.

NOTE: If bookings are more than 100 per agency account, we suggest instead to use the booking batch solution at section 20.

https://partnerapi.novasol.com/api/bookings?company=NOV&salesmarket=208&agency=1234567&test=true

10.1 Parameters

Parameter company salesmarket	Rule mandatory mandatory	Format alpha ISO 3166-1 numeric-3	Description nov=novasol or dan=dansommer
agency propertyid arrival booked name offset	mandatory optional optional optional optional optional	numeric alpha numeric YYYYMMDD YYYYMMDD alpha numeric	7 digit Agency number property number returns bookings with specific arrival date returns bookings completed on a specific date search for bookings by customer name 7 digit booking id. To call the next set of bookings if more than
test	optional	boolean	50 bookings are listed. Used when sending test bookings

10.2 Returns

The booking list will return 50 entries at one time

Parameter	Format	Description
nextoffset	numeric	Use value for "offset" to request the next 50 bookings.

booking bookingid propertyid country arrival departure booked optiondate name people custcountry type Company	numeric alpha numeric alpha YYYYMMDD YYYYMMDD YYYYMMDD alpha numeric alpha alpha alpha	Separator for each booking 9 digit booking number property number Letter code (for example Denmark DK) date of arrival date of departure date of booking Latest date to confirm option full name of customer amount of people including children Letter code (for example Denmark DK) option, booking, reservation or cancellation Company in which product is booked (NOV=NOVASOL, DAN=dansommer)
salesmarket	ISO 3166-1 numeric-3 ISO 4217 alpha-3	
currency payment	numeric	Amount of payment received by NOVASOL
commission	numeric	Amount of commission
subgroup	alpha numeric	Shown when subgroup is defined on booking
username documentElectronic	alpha numeric boolean	Shown when user defined on booking true = electronic papers ordered
documentAuthorized	boolean	true = electronic papers ordered true = electronic papers available and ready for download

11 API-method /bookings/[specific]

Request a specific booking. Use method GET.

NOTE: If bookings are more than 100 per agency account, we suggest instead to use the booking batch solution at section 20.

https://partnerapi.novasol.com/api/bookings/1853623?agency=1234567&propertyid=c17500&salesmarket=208&company=NOV&test=true

11.1 Parameters

Parameter bookingid salesmarket	Rule mandatory mandatory	Format numeric ISO 3166-1 numeric-3	Description 7 digit booking number
agency	mandatory	7 digit number	Agency number
propertyid	mandatory	alpha numeric	property number
company	mandatory	alpha	nov=novasol or dan=dansommer
test	optional	boolean	Used when sending test bookings

11.2 Returns

Parameter bookingid propertyid custname street number floor location zip city	Format numeric alpha alpha numeric alpha numeric alpha alpha numeric alpha	Description 7 digit booking number House number Customer full name Customers address street Customers address house number Customers address floor id Customers address extension Customers address zip code Customers address city Customers address country letter (for Denmark DK)
	•	
floor	alpha numeric	Customers address floor id
location	alpha	Customers address extension
zip	alpha numeric	Customers address zip code
city	alpha	Customers address city
custcountry	alpha	Customers address country letter (for Denmark DK)
phone	numeric	Customers telephone number
email	xxx@yyy.zzz	Customers e-mail address
persons	numeric	number of persons (adults + children)
children	numeric	number of children

pets	numeric	number of pets
arrival	YYYYMMDD	date of arrival
departure	YYYYMMDD	date of departure
season	YYYY	Season specification
apartment	numeric	Only used when the property contains more than one unit
		(Example property with 5 similar apartments). This
		parameter will usually return "1".
username	alpha numeric	Shown when subgroup is defined on booking
subgroup	alpha numeric	Shown when user defined on booking
booked	YYYYMMDD	Date of booking
booktime	HHMMSS	Time of booking
documentdate	YYYYMMDD	Date when travel documents were printed (for e-
documentuale		
	alaha	documents=date of creation).
company	alpha	Company on which the property is booked NOV=NOVASOL,
		DAN=Dansommer
language	ISO 3166-1	
	numeric-3	
department	numeric	Sales market id number (is also mentioned on the travel
		documents)
salesmarket	ISO 3166-1	
	numeric-3	
currency	ISO 4217	Of the stated price
-	alpha-3	
price	numeric	Rental price
payments		Separator for the different payments
paymentid	numeric	ID of payment in regards to first or second rate
paymentdate	YYYYMMDD	date of payment
amount	numeric	Amount of payment
paid	numeric	Amount that is registered at NOVASOL as paid on this
para	Hamono	booking
cancellationpossible	boolean	True if booking can be cancelled, False if not
cancellationfee	numeric	Amount of cancellation fee if booking would be canceled
cancenationnee	numenc	•
aammiaaian	numeric	today
commission		commission for the agency on this booking
optiondate	alpha	Expiry date for option
type	alpha	Booking, option, reservation or other
document	boolean	True = electronic document are authorized and available
external	alpha	Text to customer if any is registered
extras		Separator for the different extra services ordered by
		customer
productid	alpha numeric	Extra service id
productname	alpha	Name of service is sales market language
quantity	numeric	Amount of ordered items of this extra service product
productprice	numeric	Total amount of this extra service product
contactAddressLines		Separator
addressLine	alaba	Multiple "addressLines" with different information are
addressLine	alpha	•
a and it is a Tay t		possible.
conditionText	a ha ha a	Separator
condition	alpha	Code returned indicates the information in the text
		parameter (below). Possibilities are REN=Cleaning,
		DEP=Deposit, FOR=Consumption costs
text	alpha	Notification of mandatory extra service
routeInstruction		Separator
keyAddressText1	alpha	Information about key address
keyAddressText2	alpha	Information about key address
keyAddressZipCity	alpha	Information about key address (not necessary Zip and City)
keyAddressExtraInformation	alpha	Information about key address
routeInstructionText	alpha	Text on how to get to the key address.
geoCodeText	alpha	Text including the geo coordinates to the key address.
U		<u> </u>

11.3 Return "error" messages

200 : OK

400 : Bad request, syntax must be wrong, please read documentation

- 401 : Unauthorized
- 404 : Not found, temporally error
- 405 : Method not allowed, use correct method instead
- 408 : Time out

12 Rental Agreement

The customer needs to acknowledge and accept the general rental terms of NOVASOL or dansommer before booking.

12.1 NOVASOL Rental Terms

Our Rental terms are available as PDF documents. The documents are available for every season. **Note**: We highly recommend you to provide links to your customers to these documents.

The rental terms are acquired via a URL which is supplied via the \available API call. See chapter "6.1 Parameters (GET)" for further details.

You can also get a full list of available terms by "GET" https://partnerapi.novasol.com/api/rentalterms

If the rental terms for the requested season is not yet available then the rental terms for the previous season are supplied.

Example

```
<rentalTerms>
```

```
<![CDATA[https://image.novasol.com/site/terms/nov/2021/terms-com.pdf]]> </rentalTerms>
```

</rental l erms>

13 API-method /seasons

This is a request to check for open seasons by product country or company. The method GET is used.

https://partnerapi.novasol.com/api/seasons https://partnerapi.novasol.com/api/seasons?country=191 https://partnerapi.novasol.com/api/seasons?country=208&company=dan

NOTE: We suggest you to perform this call every week, to ensure that you have all season open for sale

13.1 Parameters

Parameter	Rule	Format	Description
company	optional	Alpha	NOV=NOVASOL or DAN=Dansommer
country	optional	ISO 3166-1 numeric-3	

13.2 Returns

Parameter company name	Format alpha	Description NOV=NOVASOL or DAN=Dansommer
country	ISO 3166-1 numeric-3	
startDate endDate	YYYYMMDD YYYYMMDD	Season start date Season end date

14 API-method /countries

Request method to get a list of product countries. Method GET is used

https://partnerapi.novasol.com/api/countries

14.1 Parameters

Parameter Rule Format ISO 3166-1 salesmarket optional numeric-3

Description Default is set to 999

14.2 Returns

Parameter	Format	Description
country	ISO 3166-1 numeric-3	
name	alpha	Name of the country in requested language (default is 999)

15 API-method /countries/[specific]

Request a list of areas in a specific product country. Each property is located in one area. Method GET is used. Add the product country ISO code separated by "/" to the URL.

https:// partnerapi.novasol.com/api/countries/191

15.1 Parameters

Parameter	Rule	Format	Description
company	optional		Default is set to nov=NOVASOL
salesmarket	optional	ISO 3166-1 numeric-3	Default is set to 999

15.2 Returns

Parameter	Format	Description
country	ISO 3166-1 numeric-3	country iso code
areaid	apha numeric	area id used to search for specific areas.
areaname	alpha	name of area in request language
areaid	apha numeric	Sub area id used to search for specific areas
areaname	alpha	Name of the country in requested language

16 API-method /translate

Much data is provided as codes and this method enables you to get translation of codes into many languages. The method is GET.

https://partnerapi.novasol.com/api/translate?salesmarket=280

16.1 Parameters

Parameter	Rule	Format	Description
salesmarket	mandatory	ISO 3166-1 numeric-3	

16.2 Returns

Parameter	Description
translations	
salesmarket	Information about the selected file
buildingTypes	Contains all types of buildings belonging to one entity

type - id description roomsTypes type - id description roomFacilities facility - id description codeValues - id description objectTypes type - id description concepts concept - id name description features feature group description subgroup - id description Locations location - id description extraServices extraService - id names name descriptions description ownerExtraServices ownerExtraservice - id names name descriptions description priceTypes priceType - code descriptions description

Code for building type Name of type of building including language code Contains all descriptions of the different room types Code of room type Description of type of room including language code Contains all descriptions of room facilities, such as type of terrace or bath room Code for room facility Description of room including language code ID of type of facility Description of type of facility including language code Contains all descriptions for type of beds Code for bed type Description of type of bed including language code Contains all descriptions of concepts Concept code Concept title including language code Concept description including language code Contains all descriptions of features group id Description of group including language code Subgroup id description of subgroup including language code Location ID Description of location including language code Extra service ID (serviceID) Name of service Description of service Owner extra service ID (serviceID) Name of owner extra service Description of owner extra service List of priceTypes to be used with services Price type code Description of price type

17 Property data

Data on properties are grouped into 12 sections. Each section will be described in detail here.

<product></product>	
<propertyid></propertyid>	
<season></season>	
<salesmarkets></salesmarkets>	returns list of requested salesmarkets
<salesmarket code=""><td>alesmarket> code is ISO-code for salesmarket</td></salesmarket>	alesmarket> code is ISO-code for salesmarket
<brands></brands>	per salesmarket is listed which brands property is sold under
<brand></brand>	brand code NOV=NOVASOL or DAN=dansommer

17.1 information

Basic information about the property.

We do not offer a parameter for total number of sleeping places. You can calculate them like this [total number of sleeping places = adultCounts + < calculate-colored total number of sleeping places. You can calculate them like this [total number of sleeping places = adultCounts + < calculate-colored total number of sleeping places. You can calculate them like this [total number of sleeping places = calculate-colored https://www.calculate-colored https://www.calcula

<information></information>		
<name></name>	property name if available	
<quality></quality>	number of stars	
<buildyear></buildyear>	year when property were build	
<modernizedyear></modernizedyear> latest year that property were modernized		
<switchday></switchday>	normal weekday that arrival/departure takes place	
<minimumdays><td>nDays> Minimum number of nights the property can be rented. Standard is 7 which means the property can be rented for full weeks only. Depending on the pricerules. NOTE: Exceptions where minimum nights is 7, will be reflected at the pricerule section.</td></minimumdays>	nDays> Minimum number of nights the property can be rented. Standard is 7 which means the property can be rented for full weeks only. Depending on the pricerules. NOTE: Exceptions where minimum nights is 7, will be reflected at the pricerule section.	
<type></type>	property type; H=House, A=Apartment, B=Houseboat, M=Mobile House	
<adultcount></adultcount> number of adults (sleeping places for adults)		
<childrencount></childrencount> number of children (sleeping places only fit for children)		

<extraBedCount></extraBedCount> number of extra beds (temporally sleeping places) <allowedPetCount></number of pets that guests can bring <kidsFreeOfCharge></kidsFreeOfCharge> number of kids (<4 years) that are free of charge <catalogueHouse></catalogueHouse> Connector for parent house in case the property is part of a complex. Apartments belonging to one complex might be different in size and interior. <catalogue id=" " page=" " type=" "></catalogue> id references to catalogue number page references to which page in catalogue that property is located catalogue type H=Main catalogue <productNotes></productNotes> The text returned is relevant information for the customer considering to book the

property. The atributes specify the language. This text needs to be shown prominent on the property description !

</information>

17.2 features

Facilities in and outside of property. If a facility is available it will be listed with group and subgroup id. There are 750+ different possible facilities. Full list of features is available using /translate method. Some facilities may have extra data such as starting and/or ending date, size (square meters) or counter. These are listed as units with each facility.

<features>

<feature></feature>	
<group></group>	group code between 000 and 999, that is the main identifier of a feature
<subgroup></subgroup>	subgroup that defines are more precise feature definition
<startdate></startdate>	from date where feature is available – format is YYYYMMDD
<enddate></enddate>	to date when feature is no longer available – format is YYYYMMDD
<unit id="" size=""></unit>	 extra data about feature Unit id can contain different values such as floors, m2, I, spaces, capacity, count, feet, hp (horsepower) or other depending on group. size is number or size of unit id.

```
</features>
```

Facilities:

- 020 Swimming pool and size if available
- 021 Poolroom equipment
- 028 Free access water park
- 600 Free access water park
- 700 Leisure center
- 027 Basin
- 022 Whirlpool and number of persons
- 023 Sauna
- 024 Solarium
- 026 Activity room
- 083 Boat, length and horsepower
- 085 Fish cleaning
- 025 Exercise
- 052 Television
- 053 Channels
- 054 Stereo
- 055 Video
- 056 Phone
- 057 DVD
- 110 Electrical products
- Electrical products 111
- Satellite 112
- Exercise equipment 114
- Indoor toys, baby items 116
- 122 Indoors various
- 126 Additional data
- 127 Pool opening hours
- 650 Concept codes

About the property:

- 001 Property type
- 003 Building material
- 005 Roof
- 002 Floor
- 101 Negative code
- 102 Negative code
- 170 Located on...
- 171 Located on...
- 172 Located on...
- 173 Located on...
- 174 Located on...
- 175 Located on...
- 176 Located on...
- 177 Located on...
- 086 View
- View 2 087 300 Location view

- Energi / heating: 004 Isolation
- 006 Heating
- 007 Heating secondary
- 80 Floor heating
- 058 Fireplace
- 080 Extracostsexcl
- 081 Extracostsincl
- 105 Energy costs

- Amenities:
- 040 Kitchen cold/hot water041 Stove and number of plates
- 042 Refrigerator
- 043 Aspirator
- 044 Freezer and size liter
- 045 Coffee brewer046 Espresso
- 047 Microwave
- 048 Wash machine
- 049 Dryer
- 050 Dishwasher
- 051 Vacuum cleaner
- 115 Kitchenware
- 124 Floor heating, wet room

Outside / Grounds:

- 010 Plot type and size m2
- 011 Garden
- 012 Terrace
- 013 Garden furniture
- 014 Parking space and number of spaces
- 015 Outdoor toys
- 113 Outdoor toys
- 126 Outdoor various
- 300 Games / activities near house
- 090 Activity
- 084 Fish activity
- 309 Free activities nearby
- 310 Nearby

17.3 location

Nearby activities and facilities

<locations>

<location></location>	text description of property location should be used in search results and house views as main title/location	
<areacode></areacode>	property location code - use /countries/[specific] to see full area list	
<pointsofinterest></pointsofinterest>		
<pointofinterest></pointofinterest>		
<group></group>	type of point of interest see /translate under Locations for more information	
<subgroup><td>> sub definition of point of interest see /translate under Locations for more information)</td></subgroup>	> sub definition of point of interest see /translate under Locations for more information)	
<distance></distance>	distance to POI in meters	
	as longitude/latitude coordinates. e shown to the customer prior booking.	
<address></address>		
<street></street>		
<streetnumber><td>nber></td></streetnumber>	nber>	
<floor></floor>		
<zip></zip>		
<city></city>		
<countryisocode></countryisocode>		
<country></country>		
<coordinates quality=""></coordinates>	 quality indicates how accurate longitude/latitude of property is. 0 = Unknown location 1 = Country level accuracy 2 = Region (state, province, prefecture, etc.) level accuracy 3 = Sub-region (county, municipality, etc.) level accuracy 4 = Town (city, village) level accuracy 5 = Post code (zip code) level accuracy 	

- 6 = Street level accuracy 7 = Intersection level accuracy
- 8 = Address level accuracy

9 = Premise (building name, property name, etc.) level accuracy Quality lower than 6 shouldn't be used for showing location online

<longitude></longitude>

<latitude></latitude>

<routeLongitude></routeLongitude>

<routeLatitude></routeLatitude>

cypermission> </permission> F = ok to use or N = not ok to use. This parameter controls on our website if the
house is shown on the map or not.

<status></status> V=verified (other than V is not verified to be shown on the web)

</coordinates>

</address>

17.5 buildings

Description of buildings, rooms and layout. Translations of types can be retrieved using /translate method.

```
<buildings>
  <br/>
<building type=""> some properties one or two annex on site, hence multiple buildings
                            type=001 is holiday home
    <room type="" size="">
                            for each room is listed sleeping capacity and other information
                            type defines room type - see /translations under roomTypes
                            size is room floor size in square meters
      <roomFacility id="" type=""></roomFacility>
                            roomFacility id/type refers to bathroom and toilet facilities, and info about
                            terrace/balcony - see /translation under roomFacilities
      <object type="" count="" capacity="" totalCapacity=""></object>
                            type refers to bed-type in room - see /translation under objectTypes
                            count defines number of bed-type in the room
                            capacity is number of sleeping places in the bed
    </room>
  </building>
```

</buildings>

17.6 pictures

Description and location of pictures and ground plan per property.

- The standard size is 2048 x 1303 pixels equal to 11:7. To get other sizes you need to use add a folder to the path:
 - 300-pixel picture = [<u>http://image.novasol.com/pic/300</u>]

- o 425-pixel floor = [<u>http://image.novasol.com/pic/425</u>]
- o 600-pixel picture = [<u>http://image.novasol.com/pic/600</u>]
- o 1024-pixel picture = [.http://image.novasol.com/pic/1024]
- o 2048-pixel picture = [http://image.novasol.com/pic/2048 ...]
- Model Images are shown with a camera as watermark in the image, and will be replaced once the right pictures are available, this will often be the case if it's a new build property

<pictures>

<picture lastmo<="" linktype="" th=""><th>odified="" sequenceNumber=""> linkType is image-type – P=Catalogue, W=Web and G=Floor plan lastModified show latest updated of file - format YYYYMMDDHHMMSS sequenceNumber – Catalogue pictures have a sort order – other Web pictures should be shown sorted by alphabetic order</th></picture>	odified="" sequenceNumber=""> linkType is image-type – P=Catalogue, W=Web and G=Floor plan lastModified show latest updated of file - format YYYYMMDDHHMMSS sequenceNumber – Catalogue pictures have a sort order – other Web pictures should be shown sorted by alphabetic order
<domain></domain>	domain where picture is located
<path></path>	path to picture
<file></file>	filename of picture
<theme></theme>	

</picture>

</pictures>

17.7 media

We offer property descriptions for all properties but not in all languages. The translation work load is quiet heavily and we focus on our main customer groups. These are German, Dutch, Danish, Swedish and Norwegian. We focus on main destinations for all other languages. Translations into English are only randomly done. Some properties may have videos available.

<media>

<texts>

```
<text languageiso="" type="" theme="" format=""></text>
Languageiso specifies the language the description is written in.
Type :
W=Web Text (primarily used for online presentation)
```

</texts>

<videos>

<video type=""></video> video information is included as full html objects

</videos>

</media>

17.8 prices

Each property has different week prices depending when customers are traveling. Each week price is valid for a certain period of time and in prices-section is all periods listed with a price code/letter (A-Z) and week price for one week within the listed period. Returned prices are based on requested salesmarket(s).

<prices>

<price></price>	
<code></code>	A – Z code for price
<price></price>	Net weekly rental Price
<salesmarket <="" code="" td=""><td>currency=""></td></salesmarket> code specifies salesmarket (ISO code) currency lists currency for salesmarket	currency="">
<adjustedprice></adjustedprice>	Weekly rental price (including mandatory <extraservice> fix costs) for legal correct presentation. Depending on legal rules for each sales market. Do not use as booking price value! And we suggest you in general not to use this but only use the price for the calculation of the price, and by adding either <extraservice> & you will be able to get the final price that has to be displayed to the customer.</extraservice></extraservice>
<salesmarket <="" code="" td=""><td>currency=""></td></salesmarket> code specifies salesmarket (ISO code) currency lists currency for salesmarket	currency="">
<from></from>	start date for price – format YYYYMMDD
<to></to>	end date for price – format YYYYMMDD

</prices>

17.9 offers

Description of discounts, last minute and special price rules on property. Not all parameters will be return per offer, as different rules comply depending on offer type.

<offers>

<offer></offer>	
<fromdate></fromdate>	start date for offer – format YYYYMMDD
<todate></todate>	end date for offer – format YYYYMMDD
<code></code>	type of offer: lastminute; price/discount/salesmarket is returned and fromDate/toDate is arrival/departure dates specialoffer; discountPercentage is returned and arrival date have to be fromDate or later and departure date should be at latest returned toDate
<price></price>	deducted weekly price for period
<discount></discount>	discount that is deducted from rental price (<discount> + <price> = normal season price)</price></discount>
<salesmarket><td>rket> ISO code for salesmarket</td></salesmarket>	rket> ISO code for salesmarket

<discountPercentage></discountPercentage>

percentage that rentalprice should be deducted by

</offer>

</offers>

17.10 availabilities

Describes when property is available or not.

Use of calendar

- There are 2 dependencies for opening a new season:
- 1) The product country must be opened up for the new season. This controls all properties in one country
- 2) The last rental date must be in the beginning of the next year of the new season (usually the first or second Saturday in January, in case of winter sport accommodation first day of May). This parameter controls the individual property.

The availability calendar shows 365 days from January 1st to December 31st and does not state if the property is open for the next season. To be able to sale the new year's week, its therefore needed to import at least the availabilities for next season. So two season of availabilities has always to be imported.

<availabilities>

<availability>

<apartment></apartment> used in case of a property containing multiple identical apartments. Usually value=1		
<from></from>	start date of availability list – format YYYYMMDD	
<to></to>	end date of availability list – format YYYYMMDD	
<lastrentaldate><td>tRentalDate> Date until the property can be booked online. The property is no longer in our portfolio after this date. And all data as to be deleted once this date has passed. The lastRentalDate is the primary key in the case both "dates" are returned.</td></lastrentaldate>	tRentalDate> Date until the property can be booked online. The property is no longer in our portfolio after this date. And all data as to be deleted once this date has passed. The lastRentalDate is the primary key in the case both "dates" are returned.	
<lastavailabilitydate><</lastavailabilitydate>	c/lastAvailabilityDate> Date until the property can be booked online. The house is still in our portfolio and will be opened for sales again. Manual pre-reservation for periods after this date can be made on the property and will be confirmed as soon as the date is removed. Pre – Reservations can only be made by contacting our customer service team.	
<inactive></inactive>	This indicates if the property has been registered as inactive and can no longer be booked: true=The property is inactive false=the property is active	
<days></days>	One letter for each day of the year. A=Available O=Occupied X=Occupied R=Request (contact NOVASOL booking service)	

</availabilities>

NB: Winter rule for properties in Denmark

As per June 2020 a separate winter rule has been implemented for properties in Denmark. For detailed information please see 19.4

17.11 services

Extra Service is for example final cleaning, linen, child chair or childbed. Depending on the product country or property are these services optional or mandatory. Depending on the sales market the extra service is calculated into the rental price or has to be paid on arrival.

Extra Services should always be listed with other price information, especially when services are compulsory. Our guests need full information about the products and prices, before the make the booking!

Services under <extraService> are offered and handled by NOVASOL or dansommer. Services under <ownerExtraService> are handled by the house owner and the payment of this has to take place on arrival only, where <extraService> can be paid upfront or at arrival. We suggest you to add as much to the booking as possible as this will create a better customer journey for the customer.

<services>

<extraService>

<serviceID></serviceID>
our internal id number for the service. This is used for ordering services
with booking. The text description of the service can be found looking for
the serviceID in the translation endpoint.

<priceUnitCode></priceUnitCode>

states how price is calculated:

- 1 = Daily price
- 2 = Weekly price
- 3 and (maxUnits = 1) = Price per stay
- 3 and (maxUnits = -1 (minus 1)) = Price per Unit
- 4 = Price per person
- 5 = Price per unit
- 6 = Price per day and person
- 7 = Price per week and person

<serviceGroup></serviceGroup>

specification for group: 101=Deposit 201=Cleaning 202=Services 203=Insurance 204=Tax 205=Mandatory Variable consumption cost 301=Activities

<price>

<salesmarket code="" currency=""></salesmarket> Price for requested sales marked

</price>

```
<servicetype>
```

<salesmarket code=""></salesmarket>

Specifies if the service is mandatory for each sales market 0 or not specified = optional and can be paid with the booking (using "external" parameter on booking request) or on arrival on request. 1 = the service is mandatory and can be paid with the booking (using "external" parameter on booking request) or on arrival

 2 = the service is mandatory and unit price included in rental price 3 = the service is mandatory. The price is added to the rental and booking price and paid with booking. 4 = the service is mandatory; price is added to the rental price on house presentation but is not added to rental price on booking. Service is paid on arrival. 6 = the service is variable and mandatory. The service can not be added to the booking, but guest will get charged the cost on site or after check out. Cost will be charged according to the guest usages. Shall not be added to the rental price but stated at the house presentation and check out pages.
shows how many services that can be ordered online if the value is "0 or minus 1" or the parameter is missing it is not possible to order the service online.
service is available from this date – format YYYYMMDD
service is available until this date – format YYYYMMDD
our internal id number for the service. Service cannot be ordered with booking but should be listed with other property information. Description of service can be found looking for serviceID under /translate
price for extra service umPrice>
specified if the service has a minimum price. Multiply <price> with amount of guests. The higher amount of minimum and price per person is taken as cleaning costs</price>
UnitCode> states how price is calculated: 1 = Daily price 2 = Weekly price 3 = Price per stay 4 = Price per person 5 = Price per unit 6 = Price per day and person 7 = Price per week and person 11 = Price per kWh 12 = Price per m ³ 13 = Price per liter 21 = Price for 4 hours 22 = Price for 8 hours 23 = Price for 5 days 24 = Price per set
ype> Specifies if the service is mandatory for each sales market 0 or not specified = optional or variable cost and paid on arrival. If optional only if requested. 1 = the service is mandatory and paid on arrival
 1 = the service is included 2 = the service is variable and based on the guest use and to be paid on site.

<currency></currency>

</OwnerExtraService>

</services>

17.12 concepts

Describes types of concepts on a property. Concepts can be price and arrival related like Spar/longterm discount, Mini vacation and Optional arrival. Concepts can be about special features such as free access to waterpark or that property has an exceptional view. We suggest you to review the concepts and use the concepts as best as possible to indicate this property has something unique to offer. All concepts minus Spar/longterm discount, Mini vacation and Optional arrival will also be available as a feature.

<concepts>

<concept></concept>

</concepts>

18 PriceRules/LOS rules

By using the parameter sections=pricerules you will get all rules for the properties. This will inform you if the property is allowing any kind of other stays then week stays such as short-term vacation, or optional arrival. It will also give you the rules for regular week stays. It will also inform you about long-term discount. Example if customer books 14 nights, and then get a discount.

To have the full overview to be able to calculate the prices you must use following sections:

<prices> - will return the week prices for each property

<priceRules> - will return the specific rules for each property

<offers> - will return if there is any special offer or last minute deal

<services> - will return all services, mandatory services is needed to calculate the total price.

NOTE: The price rules are valid per season, and follow the normal seasonality. Its therefore important to collect all available season and the price rules.

Return	Description	Format
<salesmarket></salesmarket>	On which sales	Numeric
	market the code is	
	valid.	
<from></from>	From when the rule is	Numeric
	valid and to be used.	
	Equal to the first	
	possible check in date	
<to></to>	Until when the rule is	Numeric
	valid. Equal to the last	
	possible check out	
	date.	
<percentage></percentage>	Can either be positive	Numeric
	or negative	
<arrivalweekdays></arrivalweekdays>	On which week day	Numeric
	the check in rule is	
	valid for.	
<minstay></minstay>	Minimum length of	Numeric
	stay	
<maxstay></maxstay>	Maximum length of	Numeric
	stay	
<maxdaystoarrival></maxdaystoarrival>	From when the rule	Numeric
	can be used. Equal to	
	booking restrictions. If	
	there are more days to	
	arrival then indicated	
	in this filed, the rule	
	cannot yet be used.	

18.1 Price rules definitions

18.2 Price rule calculations

How to calculate the prices based on price rules. The baseline for using our price rules are as before to calculate the day price, (week price divided by 7).

All rules has to be calculated and the cheapest price for a given period has to be used as the price.

18.2.1 Week price, fixed arrival weekday

Rule example

```
<season>2019</season>
<priceRules>
<rule>
<salesMarket>999</salesMarket>
<from>2019-01-12</from>
<to>2020-01-11</to>
<percentage>0.00</percentage>
<arrivalWeekdays>6</arrivalWeekdays>
<departureWeekdays>6</departureWeekdays>
<minStay>7</minStay>
<maxStay>84</maxStay>
</rule>
```

Week price calculations example with week price of 700 ((700 / 7 = 100)*7=) = 700

18.2.2 Rule calculations with percentage

Rule example

```
<priceRules>
<rule>
<salesMarket>999</salesMarket>
<from>2020-01-11</from>
<to>2021-01-09</to>
<percentage>86.66</percentage>
<arrivalWeekdays>1,2,3,4,5,6,7</arrivalWeekdays>
<minStay>3</minStay>
<maxStay>3</maxStay>
<maxDaysToArrival>28</maxDaysToArrival>
</rule>
```

Examples:

3 night stay with week price 700 700 / 7 = 100 * 3 = 300 + 86,66% = 559,998 ~ 560

With overlapping of seasons prices

Week 1 = 700 Week 2 = 800 1 day in week 1 & 2 days in week 2 Week 1 = 700 / 7 * 1 = 100 Week 2 = 800 / 7 * 2 = 228,571 100 + 228,571 = 323,571 + 86,66% = 613,331 ~ 613

3 night stay with week price 700 and 30 % discount stayed in section "offer"

Please find Example at the site http://novasol.helpserve.com/Knowledgebase/Article/View/76/15/pricecalculation-examples **NOTE:** The latest check in date for above rule is: 2021.01.06 "to" date minus max stay" (Corresponds to latest check out date = 2021.01.09).

18.2.3 Rule calculations for periods of +7 days

Calculations of stays above 7 days

Rule example

<rule> <salesMarket>999</salesMarket> <from>2020-01-11</from> <to>2020-06-27</to> <percentage>0.00</percentage> <arrivalWeekdays>1,2,3,4,5,6,7</arrivalWeekdays> <minStay>7</minStay> <maxStay>84</maxStay>

Examples

Week price 700 stay length 10 days

700 / 7 = 100 * 10 = 1000

With overlapping season prices Week 1 = 700 Week 2 = 1000 5 days in week 1 and 5 days in week 2 700/7=100 * 5 = 500 1000/7=142,857*5 = 714,285 Price total for 10 days 1214,286~1214 Rule Example

NOTE: The latest check in date for this rule is 2020-06-2020 (Corresponds to latest check out date = 2021-06-27). Periods can go beyond 2020-06-27 but in such case other rule has to be applied, example

<rule> <salesMarket>999</salesMarket> <from>2020-01-11</from> <to>2021-01-09</to> <percentage>0.00</percentage> <arrivalWeekdays>6</arrivalWeekdays> <departureWeekdays>6</departureWeekdays> <minStay>7</minStay> <maxStay>84</maxStay>

Example: Check in 2020-06-18 & check out 2020-07-04 is ok Check in 2020-06-18 & check out 2020-07-03 is not ok, as no rules is valid.

18.2.4 Rule calculations for "negative" percentages

Calculation rules where discount is offered for a period:

Rule example:

```
<priceRules>
<rule>
<salesMarket>999</salesMarket>
<from>2020-01-11</from>
<to>2020-06-20</to>
<percentage>-10.00</percentage>
<arrivalWeekdays>1,2,3,4,5,6,7</arrivalWeekdays>
<minStay>14</minStay>
<maxStay>84</maxStay>
```

Calculation example of a 14 night stay where week price is 100 100 / 7 * 14 = 1400 minus 10 % = 1260

Calculation example of overlapping season prices.

Week 1 = 700 Week 2 = 1000 7 nights in each week= 700/7=100 * 7 = 7001000/7=142,857 *7 = 1000Total price 1700 minus 10 % = 1530 **NOTE:** Discount percentages are only valid with in the from – to dates in the rule. Bookings can off course start before the from date and go beyond the to date, but for the stays discounts will not apply. Only for stays within the rule

18.3 Calculation template

To make it even easier for you to make some test examples, we have created a excel sheet as an calculation model for stays 2-6 days.

This can be found under the section downloard at http://novasol.helpserve.com/Knowledgebase/Article/View/76/15/price-calculation-examples

18.4 Last minute

Referring to the parameter and value <code>lastMinute</code> in the product information under section offers. NOVASOL last minute offers are properties which have had a cancelled booking for the requested period. Prices are shown per week and need to be divided into price per day and multiplied by days of the stay if the period is not a week. Is a shorter period booked the last minute offer is only given for the booked period. A new booking for the rest of the period will be to normal conditions.

NOTE: Last minute overrules price rules and restrictions given in rules are not valid with in the last minute period.

18.5 Rounding rules

When the calculation is completed the final price must be rounded according to the general rounding rules (up/down)

Example: 10,412 = 10 10,513 = 11

18.6 restrictions

To be able to inform our partners about until when a booking can be created instantly, without doing any request we have updated our price rules API with following two information.

A) <bookingOffset>
This indicate until when a property can be booked online via the API.
Example <bookingOffset>P1DT8H</bookingOffset> this means booking is possible until 16.00 CET the day before arrival
P1 = Day of arrival midnight minus 1 day
T8H=24.00 minus 8 hours
So example arrival 20.07.2021 can be booked until 16.00 CET the 19.07.2021

B) <rollingRequest>

This indicate if the property is on request and therefore can't be booked unless its requested via us. This is also reflected at the calendar string, but know this is nice to know upfront if the property is on request xx days before arrival.

Each night a day is added to the request equal to the amount of days stated in <rollingRequest>

C) <blockedArrivalDays> This means that arrival on the given date is not permitted

D) <blockedDepartureDays>

This means that departures on the given date is not permitted

Please note that blocked arrival days and blocked departure days often is the 24th and 31th of December.

19 Special information

19.1 API weekly updates

We suggest that data is not collected in the following timeslots:

Tuesday between 03.00 & 05.30 CET

Wednesday between 05.00 & 05:30 CET

Here our system will run backups. You will get files in return but the files will not be accurate. We therefore suggest starting your jobs after this time. In general we suggest you to run batch calls after 5.30. This will ensure the best data.

19.2 Currency and sales markets

Please note that dansommer properties is only valid in following sales markets.

208,280,528,578,752 & 999.

If you have a customer from a country that is not matching any of the first 5 master sales market we suggest you to use 999 for these countries. Example Spanish or UK customers.

19.3 Discounts

The amount returned on the /available call is the discount that is offered for the requested period. The amount is already deducted from the rental price.

19.4 Winther rule destination Denmark

According to Danish law limitations apply to the rental of properties in Denmark during the winter period.

For this reason the following rules have been applied by NOVASOL:

Winter season definition From 1st November to 29th February the following year (i.e. 1.11.2020 – 28.2.2021).

Winter rule definition

1) During the winter season a property must not be occupied more than 63 days in total

2) During the winter season a customer must not be able to create a booking with a duration of more than 28 days (28 days of stay are OK, 29 or more days of stay are not OK)

When counting the occupation <days> for the winter rule validation only O=Occupied must be counted.

It has not been implemented in the availability call since it is not fixed dates that must be blocked. However the validation of the winter rule has been implemented by NOVASOL when attempting to create a new booking (post booking). If the booking details conflict with the winter rule an error code will be returned.

20 Booking batch

Instead of using specific calls on booking levels or using "List" solution for keep track of the bookings, we suggest you to use booking batch. This will allow you to create a batch request per agency ID.

Method: POST

EX: <u>https://partnerapi.novasol.com/api/bookingbatch?company=nov&agency=&salesmarket=&type=all&from=&to=&replyto=</u>

20.1 Parameters

Parameter	Rule	Format	Description
company	mandatory	alpha ISO 3166-1	nov=novasol or dan=dansommer
salesmarket	mandatory	numeric-3	
agency	mandatory	numeric	7 digit agency number
from	mandatory	YYYYMMDD	Arrival date from
to	mandatory	YYYYMMDD	Arrival date to - date must be in same calendar year as arrival from
type	mandatory		All = All reservation status
			Option = Not completed booking
			Reservation = Active not yet paid
			booking = All paid and active bookings not cancelled = option, reservation & booking cancellation= all cancelled booking bookings
replyto	mandatory	URL	URL of your server. When the batch file is ready to download a POST request is send to the specified URL including the batch ID

20.1 Parameters returns

Parameter	Format	Description
Batchid	numeric	identification of batch file

20.2 GET bookingbatch

Method: GET Ex: https://partnerapi.novasol.com/api/bookingbatch/

Enter the batched after bookingbatch/

Return the most valuable information of a booking

```
<bookings<br/>
<bookingid><![CDATA[]]></bookingid><br/>
<propertyid><![CDATA[]]></propertyid><br/>
<arrival></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></departure></depa
```

99 Document Version Control

This version includes the following changes:

Date	Section	Changes
12.9.2019	General	The previous change log has been replaced by this Version control:
	General	The Cuendet brand is not used anymore
	General	The Duo concept is not used anymore
	General	The NOVASOL support WEB site URL has changed
	General	Safe.novasol.com replaced with partnerapi.novasol.com
	6.1&12.1	The 91 day rule for properties in Denmark is not in use
	7.1	Alpine parameter is not in use
	6.1	Services and terms of rent returned with the \available API call
	7.1	Arrival details Christmas and new year changed
	8.	Bookings accepted minimum number of days before arrival changed
	8.1.1	Change in parameter/post. More parameters changed to mandatory:
		- Street, street number, zip code, city, phone, E-mail, document(electronic)
	8.3	Access to E-docs (URL will be returned when placing a booking status call)
	12.1.	Services and terms of rent returned with the \available API call
	18.1.	The definition of rules around minimum number of days of stay have changed
	18.4.	Pictures also supplied in 2048 pixel
	18.6.	All texts supplied in type W=Web text
	18.7.	Active code added for properties
	18.10	Section about cleaning updated. Section re-numbered to 20.1.
	20.2	Concept descriptions removed. Sections re-numbered. And replaced with price rules
		Detailed change log removed
	20.1-20.10	Add
	999	
18.12.2019	18.2.2	Added how to calculate a price with an offer and a "percentages"
05.06.2020	19.4	Added info about Winter rule in Denmark
29.03.2021	20	Bookingbatch added to documentation
29.03.2021	20	
29.03.2021	10 & 11	Booking batch ref. given at the booking specific call and list call
19.07.2021	17.11	Added information due to consumption cost being exposed
10.01.2021		
19.07.2021	18.6	New section added about pricerules
	1	