

Ladu20 API

API structure

Ladu20 API is REST based, queries are processed via CURL POST requests.

API base URL: henceforth **BASEURL**, will be provided by KMA.

API key: henceforth **APIKEY**, will be provided by KMA

Request data is posted in CURLOPT_POSTFIELDS as JSON.

Response data is JSON formatted and returns request status, request type, result data and rowcount.

HTTP header Content-Type needs to be set to application/json

PHP sample request

```
<?php
$curl = curl_init();
curl_setopt_array($curl, array(
    CURLOPT_URL => 'https://baseurl/product',
    CURLOPT_RETURNTRANSFER => true,
    CURLOPT_ENCODING => '',
    CURLOPT_MAXREDIRS => 10,
    CURLOPT_TIMEOUT => 0,
    CURLOPT_FOLLOWLOCATION => true,
    CURLOPT_HTTP_VERSION => CURL_HTTP_VERSION_1_1,
    CURLOPT_CUSTOMREQUEST => 'POST',
    CURLOPT_POSTFIELDS => '{"id":"21161"}',
    CURLOPT_HTTPHEADER => array(
        'Content-Type: application/json',
        'x-api-key: APIKEY'
    ),
));
$response = curl_exec($curl);
curl_close($curl);
echo $response;
```

Result handling

Response data

Query success or failure is defined in the boolean response field "ok". Response data and error descriptions are available in the field "data".

Successful response with results:

```
{ "timestamp": "2023-10-13T10:00:35.133", "ok": true, "query": "customer", "row_count": 1, "data": [ { "customer_code": "1234", "main_customer_code": "1234", "receiving_customer_code": "1234", "last_update": "2023-10-06T10:35:56.177", "name": "TEST OÜ", "reg_code": "1234568", "vat_in_use": 1, "vat_no": "EE1234567", "is_private_person": 0, "is_customer": 1, "is_supplier": 0, "is_producer": 0, "is_transporter": 0, "is_owner": 0, "phone": "555555555", "address1": "Mustamäe tee 46", "address2": "Harjumaa", "address3": "Tallinn", "postcode": "10612", "country": "EE", "language": "", "email": "info@kma.ee", "currency": "EUR", "ref_no": "0", "old": 0, "rowno": 1 } ] }
```

Successful response with NO results:

```
{ "timestamp": "2023-10-13T09:54:22.303", "ok": true, "query": "customer", "row_count": 0 }
```

Unsuccessful response:

```
{ "timestamp": "2023-10-13T09:56:54.410", "ok": false, "query": "customer", "data": { "message": "Technical error occurred" } }
```

Data output requests

API requests serve data from Ladu20 by predefined filterable POST requests. Filter parameters are defined per request and are not mandatory.

Currently the following standard outputs are available:

- Customer data
- Product data
- Stock levels
- Order
- Dispatch
- Invoice

Customer data

URL: *BASEURL*/customer

Returns customer data from Ladu20 database. Ladu20 defines customers as one collection of data with several statuses. The latter means the customer cards for suppliers, customers, producers etc are the same data unit, with several statuses defining the customer state (eg is_supplier=1 means that the customer is also regarded a supplier in Ladu20).

Filter parameters

PARAMETER NAME	TYPE	DESCRIPTION	Default value
last_update	string	returns data which is update later than the timestamp; format: 2023-10-11T00:00:00	last 240 hours
old	bool	returns results marked as old in Ladu20;	false
id	string	customer id in Ladu20	
page	int	Range 1-n	1
rowcount	int	Range 1-1000	300

Sample request data

```
'{"last_update":"2023-10-11T00:00:00","rowcount":2,"page":1}'
```

Response data

FIELD NAME	TYPE	DESCRIPTION
customer_code	string	
main_customer_code	string	payer customer code
receiving_customer_code	string	
last_update	date	format: 2023-10-11T00:00:00, created date
name	string	
reg_code	string	
vat_in_use	int	

vat_no	string	
is_private_person	boolean	
customer	boolean	customer status
supplier	boolean	customer status
producer	boolean	customer status
transporter	boolean	customer status
owner	string	
info	string	
phone	string	
address1	string	street
address2	string	city
address3	string	county
postcode	string	
county	string	county
country	string	country
language	string	
email	string	
currency	decimal	
bank	string	bank name
bankaccount	string	
ref_no	int	reference no
glncode	int	
lat	int	latitude

long	int	longitude
credit_limit	decimal	
debt_min_amount	decimal	
debt_from	int	debt from days
owner_customer	string	

Product data

URL: *BASEURL*/product

Returns product data from Ladu20 database. Ladu20 defines all product information with prices, replacements, parameters, lots, images and price agreements. In addition, the current state of the products, ordered and reserved quantities.

The price of the products ("price excluding VAT") is usually the main selling price. To classify products more easily, we have created groups of products. You can also add subgroups to item groups. For example product group1 no is 1 and, code V1 and description vegetables then subgroup for group1 may be V12(apples), V13 (citrus) etc.

Filter parameters

PARAMETER NAME	TYPE	DESCRIPTION	Default value
last_update	string	returns data which is update later than the timestamp; format: 2023-10-11T00:00:00	last 240 hours
old	bool	returns results marked as old in Ladu20;	false
id	string	product id in Ladu20	
page	int	Range 1-n	1
rowcount	int	Range 1-1000	300
group1	string		
group2	string		
group3	string		
group4	string		

Sample request data

```
'{"last_update":"2023-10-11T00:00:00","rowcount":10,"page":4}'
```

Response data

FIELD NAME	TYPE	DESCRIPTION
product_id	int	product code
product_code	string	siffer
barcode	string	
product_name	string	
baseunit	string	
large_unit	string	
large_unit_multiplier	decimal	
aidunit	string	
aidunit_multiplier	decimal	aidunits in one package
min_sales_qty	decimal	minimum quantity on sale
sales_qty_step	decimal	minimum quantity step on sale
is_expireable	boolean	product is expirable or not (1,0)
product_shelf_life	int	product lifetime in days
cn8	string	cn8 code
coo	string	country of origin
min_temp	int	minimum temperature
max_temp	int	maximum temperature
stock_qty	decimal	stock quantity
ordered_qty	decimal	ordered quantity
reserved_qty	decimal	reserved quantity
netweight	decimal	
brutweight	decimal	
volume	decimal	
price	decimal	
vat	int	vat on sale
group1	string	product group
group2	string	product group

group3	string	product group
group4	string	product group
group5	string	product group
last_update	datetime	format: 2023-10-11T00:00:00
web_groups/group_id	int	webgroup id
web_groups/group_code	string	group code
web_groups/group_name	string	group name
flex_groups/group_id	int	flexgroup id
flex_groups/group_code	string	group code
flex_groups/group_name	string	group name

Stockbalance

URL: ***BASEURL***/stockbalance

Returns stockbalance data from Ladu20 database - product amounts in different warehouses (balance, ordered, reserved). Owner is usually main warehouse.

Filter parameters

PARAMETER NAME	TYPE	DESCRIPTION	Default value
id	int	product id	
page	int	Range 1-n	1
rowcount	int	Range 1-1000	300

Sample request data

'{"last_update":"2023-10-11T00:00:00","rowcount":10,"page":4}'

Response data

FIELD NAME	TYPE	DESCRIPTION
product_id	int	
product_code	string	siffer
stock_balance	decimal	
ordered_amount	decimal	

reserved_amount	decimal	
product_id	int	
rows/owner	string	
rows/owner_stock_balance	decimal	

Order

URL: *BASEURL*/order

Returns order data from Ladu20 database. Order = sales order, which is in most cases, the primary document for the sales side for the warehouse.

Filter parameters

PARAMETER NAME	TYPE	DESCRIPTION	Default value
start	string	date from, format: 2023-10-11T00:00:00	
id	int	order id	
end	date	date until, format: 2023-10-11T00:00:00	
customer_id	string	order customer id	
page	int	Range 1-n	1
rowcount	int	Range 1-1000	300

Sample request data

'{"last_update":"2023-10-11T00:00:00","rowcount":10,"page":4}'

Response data

FIELD NAME	TYPE	DESCRIPTION
customer_code	string	
doc_no	string	order no

doc_date	date	order date, format: 2023-10-11T00:00:00
del_due	date	delivery date, format: 2023-10-11T00:00:00
status	string	order status
additional_info	string	
inserter	string	
dicount_per	decimal	discount percent
doc_no2	string	customer order no
confirmed	boolean	
currency	decimal	
currency_rate	decimal	
customer_date	date	format: 2023-10-11T00:00:00
pre_order	boolean	
payer	string	payer customer
warning	string	
xml_done	boolean	
owner	string	
salesman	string	salesman name
customer	string	customer who placed the order
phone	string	customer phone no
county	string	customer county
country	string	customer country
picking_in_prog	boolean	picking in progress

payment_due	date	format: 2023-10-11T00:00:00
payment_type	string	cash, transfer etc
weborder_id	int	
customer_name	string	customer contact who placed the order
doc_sum	decimal	
recip_customer	string	recipient customer
original_quantity	decimal	
quantity	decimal	
price	decimal	
baseprice	decimal	

Order Status

URL: *BASEURL*/orderstatus

Returns order status information from Ladu20 database.

Filter parameters

PARAMETER NAME	TYPE	DESCRIPTION	Default value
doc_no	string	order number in WMS	
id	int	order id	
start	string	status date from, format: 2023-10-11T00:00:00	
customer_id	string	order customer id	
page	int	Range 1-n	1
rowcount	int	Range 1-1000	300

Sample request data

'{"start":"2023-10-11T00:00:00","rowcount":10,"page":4}'

Response data

FIELD NAME	TYPE	DESCRIPTION
customer_code	string	
doc_no	string	order no
doc_date	date	order date, format: 2023-10-11T00:00:00
del_due	date	delivery date, format: 2023-10-11T00:00:00
status	int	order status id
status_text	string	human-readable status info
status_time	date	status timestamp: format: 2023-10-11T00:00:00 status int

Dispatch

URL: **BASEURL**/dispatch

Returns order data from Ladu20 database - dispatch of the products from Ladu20 warehouses.

Filter parameters

PARAMETER NAME	TYPE	DESCRIPTION	Default value
start	string	date from, format: 2023-10-11T00:00:00	
id	int	dispatch id	
end	string	date until, format: 2023-10-11T00:00:00	
customer_id	string	customer code	
page	int	Range 1-n	1

rowcount	int	Range 1-1000	300
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Sample request data

'{"last_update":"2023-10-11T00:00:00","rowcount":10,"page":4}'

Response data

FIELD NAME	TYPE	DESCRIPTION
dispatch_code	int	
customer_id	int	
dispatch_type_id	string	
date	date	format: 2023-10-11T00:00:00
doc_no	string	dispatch document no
discount_per	int	discount percent
inserter	string	
sum_net	decimal	
sum_incl_vat	decimal	sum including vat
due	string	payment due
payer	string	payer customer
additional_info	string	
currency	decimal	
payment_type	string	cash, transfer etc
warehouse_aaddress	string	
account	string	bank account
county	string	
country	string	
rec_customer	string	recipient customer
needed_due	date	
owner	string	
ship_customer	string	
tracking_no	string	
paid	decimal	
amount_of_boxes	decimal	

product_id	string	
batch	int	batch code
amount	decimal	
discount_per	int	discount percent
price	decimal	product price
net_value	int	
discount_price	decimal	
base_price	decimal	
brut_weight	int	
set	string	set of products
account	string	bank account
row_amount	decimal	
stockaddress	string	
set_amount	decimal	how many products in set
pieces	int	
warning	string	
sales_id	int	saleorder id
pricelist_id	int	
price_type	string	
vat_sale	string	
fix_net_value	string	
warehouse_agent	string	warehouse agent name
added	boolean	dispatch added (1,0)
package_id	string	
picker	string	warehouse agent who picked products
agent	string	agent on sale
base_code	string	
batch_id	int	
description	string	
expiration_date	date	format: 2023-10-11T00:00:00

Invoice

URL: *BASEURL*/invoice

Returns invoice data from Ladu20 database. Invoices are accounting outputs from dispatches.

Filter parameters

PARAMETER NAME	TYPE	DESCRIPTION	Default value
start	string	returns data which is update later than the timestamp; format: 2023-10-11T00:00:00	last 240 hours
end	string	format: 2023-10-11T00:00:00	
customer_id	string	customer code	
id	int	invoice id	
page	int	Range 1-n	1
rowcount	int	Range 1-1000	300

Sample request data

'{"last_update":"2023-10-11T00:00:00","rowcount":10,"page":4}'

Response data

FIELD NAME	TYPE	DESCRIPTION
customer_code	string	
invoice_date	date	invoice (document created) date
invoice_no	string	invoice number
total	decimal	total sum
paid	decimal	
paid_date	date	format: 2023-10-11T00:00:00
fine_for_delay	String	

deadline	date	format: 2023-10-11T00:00:00
paym_meth	string	payment method
printed	boolean	
post_date	date	format: 2023-10-11T00:00:00
partial	string	partial payment
cred_invoice_no	string	credit invoice no
from_stock	string	sent out from stock
report_done	boolean	
warning	string	
owner	string	
ref_no	string	reference no
add_info	string	additional information
prepaym_amount	decimal	
prepaym_info	string	
returned	boolean	
product_id	long	
batch	long	products batch
amount	decimal	
discount_percent	int	%
price	decimal	
net_value	int	
discount_price	decimal	

base_price	decimal	
brut_weight	int	
set	string	set of products
account	string	
row_amount	decimal	
stockaddress	string	
set_amount	decimal	how many products in set
pieces	int	
vat_sale	boolean	

Importing data

Salesorder

URL: ***BASEURL***/salesorder

With salesorder access point, you can import sales orders to Ladu20. Posting is identical to data output requests.

Important notes:

- If no customer code is defined, Ladu20 uses a generic customer code for the order.
- Delivery information blocks are used for postal services integrations;
- If you are using the API for B2B orders services, do not fill the subblocks customer and delivery;
- VAT percentages are especially important for cross border sales;
- Transportation fees should be added to document rows with product codes according to the product database.

Input data

FIELD NAME	TYPE	DESCRIPTION	REQUIRED
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customer_code	string	customer code in Ladu20	
customer/name	string	customer name	
customer/street	string	delivery address street	
customer/city	string	delivery address city	
customer/postalcode	string	delivery address postal code	
customer/county	string	county code	
customer/country	string	country code	
customer/email	string	email	
customer/phone	string	address	
customer/is_company	bit	yes/no	
customer/company_name	string	Customer company name	
customer/company_regno	string	Mandtory if is_company=1	
customer/company_vatno	string		
delivery/type	string	"Parcel machine", "Courier" or "Self pickup"	
delivery/delivery_partner	string	Delivery partner name for courier and parcel machines	parcel and courier
delivery/name	string	customer name	
delivery/company_name	string	company name	
delivery/street	string	delivery address street	
delivery/city	string	delivery address city	
delivery/postalcode	string	delivery address postal code	
delivery/county	string	county	
delivery/country	string	country	

delivery/email	string	email	
delivery/phone	string	phone number	
delivery/parcel_code	string	parcel machine number	parcel only
doc_no	string	order number in external system	*
project_code	string	order project code for Ladu20	
doc_seller	string	Seller code for whole document	
doc_date	string	order date in external system, format "2019-12-31T11:14:25.473" defaults to now	
del_due	string	delivery deadline, format "2019-12-31T11:14:25.473" defaults to now+1	
currency	string	order currency code	
currency_rate	decimal	order rate	
order_sum	decimal		
order_sum_with_vat	decimal		
payment_partner	string	payment partner or account code. Used for accounting purposes.	
payment_sum	decimal	sum of prepayment	
payment_type	int		
rows/product_code	string	row product code in Ladu20	*
rows/product_name	string	product name, if required as additional info; if not filled, default product name will be used	
rows/quantity	decimal	order row quantity	*

rows/price	decimal	netprice	*
rows/vat	int	vat percentage of order row	
rows/seller	string	row based seller code	

Sample data

```
{
  "customer_code":"kaupmees#",
  "customer":{
    "name":"kaupmees nimi",
    "street":"kase 1",
    "city":"tallinn",
    "postalcode":"12345",
    "county":"harjumaa",
    "country":"ee",
    "email":"info@mail. Ee",
    "phone":"55 123 123"
  },
  "delivery":{
    "delivery_partner":"Omniva",
    "email":"info@mail.Ee",
    "phone":"55 123 123" ,
    "name":"Name on parcel",
    "country":"ee",
    /* FOR PARCEL MACHINE */
    "type":"Parcel machine",
    "parcel_code":"444569", ,
    /* FOR COURIER */
    "type":"Courier",
    "street":"kase 1",
    "city":"tallinn",
    "county":"harjumaa"
    "postalcode":"12345"
  },
  "doc_no":"10001",
  "project_code":"WEBSHOP_01"
  "doc_date":"2019-12-31t11:14:25.473",
```

```
"del_due":"2019-12-31t00:00:00",
"currency":"eur",
"currency_rate":1,
"order_sum":134.15,
"order_sum_with_vat":154.15,
"payment_type":1,
"payment_partner":"Maksekeskus",
"payment_sum":154.15,
"rows":[
  {
    "product_code":"digi",
    "product_name":"ajakiri digi",
    "quantity":1,
    "vat":20,
    "price":4.185
  },
  {
    "product_code":"digi-2",
    "product_name":"ajakiri digi",
    "quantity":2,
    "vat":20,
    "price":4.185
  },
  {
    "product_code":"digi-3",
    "product_name":"ajakiri digi",
    "quantity":3,
    "vat":0,
    "price":14.185
  }
]
```

Order payment

URL: *BASEURL*/order_payment

Adding a payment to an existing order.

Input data

FIELD NAME	TYPE	DESCRIPTION	REQUIRED
doc_no	string	Document number in Ladu20	*
order_id	int	Order ID in Ladu20	
payment_sum	decimal	Sum of made payment	*

Sample data

```
{
  "payment_sum":145.67,
  "doc_no":"11145",
  "order_id":12455
}
```

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