

## 1.1 API - PRODUCT LIST

### 1.1.1 Request

This API service describes in detail the communication between 3rd Party and EC for the purpose of getting the list of products that is designed for 3RD PARTY.

Category	Parameter	Description
Test environment		
Header	Authorization	
	Accept	application/json
	Content-Type	application/json
	Method	POST
Body	See below table for data request	

Parameter	Mandatory	Type	Explanation
request_id	Y	String	Identify request is unique Format: [Partner_code + current_timestamp] Character: [A-Z0-9]{3,7}\d{13} Min to max: 16 – 20  EX: SAP157181892253
partner_code	Y	String	Partner code Format: [XXX]  EX: SAP
channel	Y	String	EX: DSA

product_line	Optional	String	<p>The product line of partner</p> <p>LOV: BUSINESS CONSUMER CDL</p> <p>Example: BUSINESS</p>
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#### Request sample:

```
{
  "request_id": "EVN1233",
  "channel": "DSA",
  "partner": "DGT"
  "product_line": "BUSINESS"
}
```

#### 1.1.2 Response


Category	Parameters/Description
status_code	HTTP status code ( <i>find more in</i> <a href="#">HTTP Response status</a> )
body	{ } Object

#### <body> object:

Parameter	Mandatory	Type	Explanation
code	Y	String	The result of request
message	Y	String	Detail of code
data	N	Array	

#### <data>

Parameter	Mandatory	Type	Explanation
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employee_type	N	String	Type of employee. See detail at attached file  mas_employee_type.csv EX: E
employee_description_vi	N	String	description of employee. See detail at attached file EX: E
employee_description_en	N	String	description of employee. See detail at attached file EX: E
product_list	N	Array object	This is an array of the list of products.

#### <product\_list>

Parameter	Mandatory	Type	Explanation
product_code	N	String	Code of product Ex: 11301
product_description	N	String	Marketing offer Character:m[A-Z0-9]{3,7}\d{13}@#! Max: 50  EX: #ERROR!ZL_EMP_59109
loan_min_amount	N	Number	Loan amount that client require for their loan and is between in range related to product_type

			Min: 0 Max: 999999999999  Ex: 15000000
loan_max_amount	N	Number	Loan amount that client require for their loan and is between in range related to product_type Min: 0 Max: 999999999999  Ex: 15000000
loan_min_tenor	N	Integer	Loan tenor that client require for repayment and in range related to product_type Min: 0 Max: 999  Ex: 12
loan_max_tenor	N	Integer	Loan tenor that client require for repayment and in range related to product_type Min: 0 Max: 999  Ex: 12
interest_rate	N	Integer	Loan interest rate that is applied for the amount and tenor loan request and in range related to product_type. Min: 0 Max: 100
document_collecting		Array object	

<document\_collecting>

Parameter	Mandatory	Type	Explanation
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bundle_name	N	String	The name of document bundle EX: "LOAN CONTRACT"
bundle_code	N	String	Code of document bundle
min_request	N	Integer	Minimum number of request documents in given bundle. Format [0-9] EX: 1
doc_list	N	Array	The array of list of Documents to be collected in the given bundles EX: "doc_list": ["DRL", "PPT", "FRB"]

**<doc\_list>**

Parameter	Mandatory	Type	Explanation
doc_description_vi	N	string	Definition of document code
doc_description_en	N	string	Definition of document code
doc_type	N	String	ID of documents
doc_format_request	N	String	Format of each document type is required when customer provide. It should be uploaded or taking photo directly. Format: [CAMERA]: It is forbidden for taking photo [ALL]: it is optional selection.

**Response sample:**

```

{
  "code": "SUCCESS",
  "message": "SUCCESS",
  "data": [
    {
      "employee_type": "SE",
      "employee_description_vi": "Tự kinh doanh",
      "employee_description_en": "Self employee",
      "document_collecting": [
        {
          "product_code": "11526",
          "product_description": "CMND/THẺ CCCD + GPLX/SỔ HỘ KHẨU/HỘ CHIẾU  
+SAO KÊ TÀI KHOẢN/SAO KÊ THẺ TÍN DỤNG/HĐ BẢO HIỂM NHÂN THỌ ",
          "loan_min_amount": 20999000,
          "loan_max_amount": 21000000,
          "loan_min_tenor": 15,
          "loan_max_tenor": 16,
          "interest_rate": 39,
          "document_collecting": [
            {
              "bundle_name": "ZALO_SCAN ID CARD FROM CUSTOMER_392115",
              "bundle_code": "19648",
              "min_request": 1,
              "doc_list": [
                {
                  "doc_description_vi": "THẺ CĂN CƯ ỚC CÔNG DÂN",
                  "doc_description_en": "SCANNED PEOPLE IDENTITY CARD",
                  "doc_type": "SPID",
                  "doc_format_request": "CAMERA"
                },
                {
                  "doc_description_vi": "CHỨNG MINH NHÂN DÂN",
                  "doc_description_en": "SCANNED NATIONAL ID",
                  "doc_type": "SNID",
                  "doc_format_request": "CAMERA"
                }
              ]
            }
          ]
        }
      ]
    },
    {
      "product_code": "11525",
      "product_description": "#ERROR!ZL_SEMP_391824",
      "loan_min_amount": 17999000,
      "loan_max_amount": 18000000,
      "loan_min_tenor": 24,
      "loan_max_tenor": 25,
      "interest_rate": 39,
      "document_collecting": [

```

### 1.1.3 Error Table

Status	Message
SUCCESS	SUCCESS
NOT_FOUND	NOT FOUND

## 1.2 Eligible API

DSA partner uses this service as the elimination round which is applied for each new request before sending a full package customer information for the loan process.



### 1.2.1 Request body:

Category	Parameter	Description
Test environment		
Header	Authorization	Bearer < access_token >
	Accept	Application/json
	Content-Type	Application/json
	Method	POST
Body	See below table for data request	


Parameter	Mandatory	Type	Explanation
request_id	Y	String	Identify request is unique Format: [Partner_code + current_timestamp]

			<p>Character: [A-Z0-9]{3,7}\d{13}</p> <p>Min to max: 16 – 20</p> <p>EX: ZAL157181892253</p>
channel	Y	String	<p>Channel is defined as source that provides lead.</p> <p>EX: DSA</p>
partner_code	Y	String	<p>The code is provided by EC</p> <p>EX: MKK</p>
dsa_agent_code	Y	String	<p>The code of sales/DSA. This is Extranet user login.</p> <p>EX: MKK241234</p>
customer_name	Y	String	<p>Full name of client that must contain only Vietnamese characters. [aA-zZ]</p> <p>Allow ['] in the middle of name</p> <p>No consecutive spaces</p> <p>Min to max: 1 - 80</p> <p>EX: Trần Văn 'A</p>
date_of_birth	Y	String	<p>Birthday of client must be equal or older than 20 and younger than 60</p> <p>Format: [dd-mm-yyyy]</p> <p>EX: 29-10-2000</p>
identity_card_id	Y	String	<p>National identity number of client</p> <p>Only digit charaters</p> <p>Min to max: 9 – 12</p> <p>EX: 0123445847791</p>



issue_date	Y	String	<p>Issued date of ID card that must be in 15 years before current date, and between year of 1900 and yesterday, and after date of birth</p> <p>Format: dd-mm-yyyy</p> <p>EX: 29-10-2017</p>
issue_place	Y	String	<p>Issued place of ID card. See detail in attached file of LOV</p> <p> mas_issue_place.csv</p> <p>EX: VIP01</p>
phone_number	Y	String	<p>Phone number of client that must be digit characters</p> <p>Min to max: 10-11</p> <p>EX: 0120757880</p>
email	N	String	<p>Email address of client</p> <p>Min to max: 1 – 250</p> <p>EX: abc@av.vn</p>
tem_province	N	String	<p>province that client is living in. See attached file of LOV for more detail.</p> <p> mas_province.csv</p> <p>EX: 017</p>
job_type	N	String	<p>Occupation of client. See more detail in attached LOV file</p>

Commented [1]: Rename

			 mas_employee_type .csv
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#### Request sample:

```
{
  "request_id": "DSA123456789",
  "channel": "DSA",
  "partner_code": "MKK",
  "dsa_agent_code": "DSAMKK1233"
  "identity_card_id": "129116715",
  "date_of_birth": "23-11-1996",
  "customer_name": "test kyc ba",
  "issue_date": "24-11-2011",
  "phone_number": "0986654321",
  "issue_place": "VIP15",
  "email": "nomail@gmail.com"
}
```

#### 1.2.2 Response:

Category	Parameters/Description
status_code	Http status code ( <i>find more in</i> <a href="#">6.1 HTTP Response status</a> )
body	{ } Object

Parameter	Type	Explanation
Code	String	The result of request
Message	String	Content detail

#### Reponse sample:

```
{
  "code": "ELIGIBLE",
  "message": "Application is eligible.",
  "data": {
    "request_id": "MOBILE1603786392465",
    "channel": "MOBILE"
  }
}
```

## 1.3 API - FULL LOAN


This service describes in detail communication between EC system and partner's for the purpose of providing full information of a loan request.

### 1.3.1 Request Body:



Category	Parameter	Description
Test environment		
Header	Authorization	Method: Bearer authentication
	Accept	application/json
	Content-Type	application/json
	Method	POST

Body	See below table for data request
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Parameter	Mandatory	Type	Description
request_id	Y	String	<ul style="list-style-type: none"> <li>Identify the loan request that must be unique</li> <li>Format: [Partner_code + current_timestamp]</li> <li>Character: [A-Z0-9]{3,7}\d{13}</li> <li>Min to max: 16 – 20</li> </ul> <p>Example: SPO157181892253</p>
partner_code	Y	String	<ul style="list-style-type: none"> <li>Code of partner</li> </ul> <p>Example: SPO</p>
customer_name	Y	String	<ul style="list-style-type: none"> <li>Full name of client that must contain only Vietnamese characters. [aA-zZ]</li> <li>Allow ['] LOV:in the middle of name</li> <li>No consecutive spaces</li> <li>Min to max: 1 - 80</li> </ul> <p>Example: Trần Văn 'A</p>
gender	Y	String	<ul style="list-style-type: none"> <li>LOV: F (Female), M (Male)</li> </ul> <p>Example: F</p>
date_of_birth	Y	String	<ul style="list-style-type: none"> <li>Birthday of client must be equal or older than 20 and younger than 60</li> <li>Format: [dd-mm-yyyy]</li> </ul> <p>Example: 29-10-2000</p>
identity_card_id	Y	String	<ul style="list-style-type: none"> <li>National identity number of the client.</li> <li>Only digit characters</li> <li>Min to max: 9 – 12</li> </ul> <p>Example: 0123445847791</p>

issue_date	Y	String	<ul style="list-style-type: none"> <li>Issued date of ID card that must be in 15 years before current date, and between year of 1900 and yesterday, and after date of birth</li> <li>Format: dd-mm-yyyy</li> </ul> <p>Example: 29-10-2017</p>
issue_place	Y	String	<ul style="list-style-type: none"> <li>Issued place of ID card. See detail in attached file of LOV</li> </ul>  mas_issue_place.csv <p>Example: VIP01</p>
phone_number	Y	Integer	<ul style="list-style-type: none"> <li>Phone number of the client that must be digit characters</li> <li>Maximum: 10 digits</li> </ul> <p>Example: 0931847384</p>
email	N	String	<ul style="list-style-type: none"> <li>Email address of client</li> <li>Min to max: 1 – 250</li> </ul> <p>Example: abc@gma.vn</p>
employment_type	Y	String	<p>Type of client employment. Choose one of 4 options below:</p> <ul style="list-style-type: none"> <li>E: Employee</li> <li>SE: self-employee</li> <li>RP: Retired</li> <li>FE: Freelance</li> </ul> <p>Example: SE</p>
product_type	Y	String	<p>Code of produte</p> <ul style="list-style-type: none"> <li>See attached file of LOV.</li> <li>Product type for SPO is 16.</li> </ul> <p>Example: 16</p>
loan_amount	Y	Number	<ul style="list-style-type: none"> <li>Loan amount that client require for their loan and is between in range related to product_type.</li> <li>Min: 0</li> <li>Max: 999999999999</li> </ul> <p>Example: 15000000</p>

loan_tenor	Y	Integer	<ul style="list-style-type: none"> <li>Loan tenor that client require for repayment and in range related to product_type</li> <li>Min: 0</li> <li>Max: 999</li> </ul> <p>Example: 12</p>
dsa_agent_code	Y	String	<ul style="list-style-type: none"> <li>Special code will be provided by EC</li> </ul>
tem_province	Y	String	<ul style="list-style-type: none"> <li>Province that client is living in</li> <li>See attached file of LOV for more detail</li> </ul> <p>Example: 017</p>
tem_district	Y	String	<ul style="list-style-type: none"> <li>The district that client is living in city/province. See attached file of LOV for more detail</li> </ul> <p>Example: 269</p>
tem_ward	Y	String	<ul style="list-style-type: none"> <li>The ward that client is living in city/province. See attached file of LOV for more detail</li> </ul> <p>Example: 478</p>
tem_address	Y	String	<ul style="list-style-type: none"> <li>The address that client is living in city/province. Min to max: 1 - 100</li> </ul> <p>Example: 123 đường xxx phường xxx quận xxx thành phố xxx</p>
permanent_province	Y	String	<ul style="list-style-type: none"> <li>Province that client is living in.</li> <li>See attached file of LOV for more detail.</li> </ul> <p>Example: 017</p>
permanent_district	Y	String	<ul style="list-style-type: none"> <li>The district that client is living in city/province. See attached file of LOV for more detail.</li> </ul> <p>Example: 269</p>
permanent_ward	Y	String	<ul style="list-style-type: none"> <li>The ward that client is living in city/province. See attached file of LOV for more detail.</li> </ul> <p>Example: 478</p>

permanent_address	Y	String	<ul style="list-style-type: none"> <li>The address verified in family book of customer.</li> <li>Min to max: 1-100</li> </ul> <p>Example: 123 đường xxx phường xxx quận xxx thành phố xxx</p>
married_status	Y	String	<ul style="list-style-type: none"> <li>Married status of client. See file attached for specific value.</li> </ul>  <p>mas_personal_info.csv</p> <p>Example: M</p>
disbursement_method	Y		<ul style="list-style-type: none"> <li>The type of disbursement that customer has selected. LOV:</li> </ul> <p>1: cash 2: bank</p> <p>Example: cash</p>
beneficiary_name	N	String	<ul style="list-style-type: none"> <li>Customer name that is mandatory if disbursement method is "Bank transfer."</li> <li>Full name of beneficiary that must not contain tones. [aA-zZ]</li> <li>Allow [''] in the middle of name.</li> <li>No consecutive spaces</li> <li>Min to max : 1 – 80</li> </ul> <p>Example: NGUYEN VAN A</p>
bank_code	N	String	<ul style="list-style-type: none"> <li>List of bank code of Bank that is mandatory if disbursement method is "Bank transfer"</li> </ul>  <p>mas_Bank_Info.csv</p> <p>LOV:</p> <p>Example: 204</p>
bank_branch_code	N	String	<ul style="list-style-type: none"> <li>List of branch code of Bank that is mandatory if disbursement method is "Bank transfer"</li> </ul> <p>LOV:</p> <p>Example: 66204022</p>
bank_account	N	Integer	<ul style="list-style-type: none"> <li>Bank account of beneficiary</li> <li>Mandatory if Disbursement channel is "Bank transfer".</li> <li>Max: 50</li> </ul>

			Example: 02358237457
monthly_income	Y	Number	<ul style="list-style-type: none"> <li>Income of client.</li> <li>Min: 0</li> <li>Max: 999999999999</li> </ul> Example: 50000000
other_income	N	Number	<ul style="list-style-type: none"> <li>Other income from customer</li> <li>Min: 0</li> <li>Max: 999999999999</li> </ul> Example: 50000000
monthly_expense	Y	Number	<ul style="list-style-type: none"> <li>Total monthly household expenses</li> </ul>
job_type	Y	String	type of professional EX: Đầu bếp
workplace_name	Y	String	<ul style="list-style-type: none"> <li>Company name</li> </ul> Example: Công ty TNHH ABC
workplace_province	Y	String	<ul style="list-style-type: none"> <li>The city/province where the company is in.</li> <li>Mandatory if employment type is “Employed”.</li> </ul> Example: 1
workplace_district	Y	String	<ul style="list-style-type: none"> <li>The district where the company is in.</li> <li>Mandatory if employment type is “Employed”.</li> </ul> Example: 17
workplace_ward	Y	String	<ul style="list-style-type: none"> <li>The ward where the company is in.</li> <li>Mandatory if employment type is “Employed”.</li> </ul> Example: 469
workplace_address	Y	String	<ul style="list-style-type: none"> <li>The detail address where the company is in.</li> <li>Mandatory if employment type is “Employed”.</li> </ul> Example: 123 đường xxx phường xxx quận xxx thành phố xxx
loan_purpose	Y	String	<ul style="list-style-type: none"> <li>Purpose of client loan application.</li> <li>See file attached for specific LOV “mas_personal_info”</li> </ul> Example: HR



relation_1	Y	String	<ul style="list-style-type: none"> <li>The relationship with a personal reference.</li> <li>See file attached for specific LOV “mas_personal_info”</li> </ul> <p>Example: RHH</p>
relation_1_name	Y	String	<ul style="list-style-type: none"> <li>Full name of Personal reference that must be Vietnamese characters. [aA-zZ]</li> <li>Allow ['] in the middle of name</li> <li>No consecutive spaces</li> <li>Min to max: 1 - 80</li> </ul> <p>Example: Trần Văn 'B</p>
relation_1_phone_number	Y	String	<ul style="list-style-type: none"> <li>Contact of personal reference that must be digit characters.</li> <li>Must be different from applicant phone number.</li> <li>Max: 10</li> </ul> <p>Example: 0988834578</p>
relation_2	Y	String	<ul style="list-style-type: none"> <li>The relationship with a personal reference.</li> <li>See file attached for specific LOV “mas_personal_info”</li> </ul> <p>Example: RHH</p>
relation_2_name	Y	String	<ul style="list-style-type: none"> <li>Full name of Personal reference that must be Vietnamese characters. [aA-zZ]</li> <li>Allow ['] in the middle of name.</li> <li>No consecutive spaces</li> <li>Min to max: 1 - 80</li> </ul> <p>Example: Trần Văn 'C</p>
relation_2_phone_number	Y	String	<ul style="list-style-type: none"> <li>Contact of personal reference that must be digit characters.</li> <li>Must be different from applicant phone number.</li> <li>Max: 10</li> </ul> <p>Example: 0938473827</p>
list_doc_collecting	Y	Array	List of collecting document
list_doc_collecting[n]	Y	Object	Represent each document info. [n]: item index.

list_doc_collecting[n].file_type	Y	String	<ul style="list-style-type: none"> <li>Type of document</li> <li>Format: Refer Doc_id LOV. Valid character should be in [A-Za-z0-9_-], length = 20</li> <li>Example: SPID</li> </ul>
list_doc_collecting[n].file_name	Y	String	<ul style="list-style-type: none"> <li>Name of file is sent to sFTP</li> <li>Format:</li> <li><i>[file_type]_[identity_card_id]_[phone_number]_[partner_code][timestamp]</i></li> <li>File type: PDF</li> <li>Push into EC SFTP</li> </ul> <p>Example: SNID_212546374_0988834589_SPO159569495581.pdf</p>
img_id_card	Y	String	<ul style="list-style-type: none"> <li>Name of ID CARD file is sent to sFTP</li> <li>Format:</li> <li><i>PID_[identity_card_id]_[phone_number]_[partner_code][timestamp]</i></li> <li>File type: PDF</li> <li>Push into EC SFTP</li> </ul> <p>Example: PID_212546374_0988834589_SPO159569495581.pdf</p>
img_selfie	Y	String	<ul style="list-style-type: none"> <li>Name of SELFIE file is sent to SFTP</li> <li>Format:</li> <li><i>PIC_[identity_card_id]_[phone_number]_[partner_code][timestamp]</i></li> <li>File type: PDF</li> <li>Push into EC sFTP</li> </ul> <p>Example: PIC_212546374_0988834589_SPO159569495581.pdf</p>

**Request Sample:**



### **Request Example:**

#### **1.3.2 Response**

Category	Parameters/Description
status_code	Http status code ( <i>find more in <a href="#">HTTP Response status</a></i> )
body	{ } Object, refer to below table for reference

Parameter	Type	Explanation
Code	String	status of request
Message	String	Content detail

### **Response Sample:**

```
{
  "status_code": "200",
  "body": {
    "code": "RECEIVED",
    "message": "Application is received"
  }
}
```

### 1.3.3 Error Table

The below table described the information of API loan request

Fields	Error message
RECEIVED	Application is received
request_id	Missing
request_id	Duplicated
partner_code	Missing
partner_code	Invalid
customer_name	Missing
customer_name	Must not contain multiple consecutive spaces or (')
customer_name	must not contains character (') at the end or beginning
customer_name	must only contains Vietnamese characters or character (')
phone_number	Missing
phone_number	must be in pattern '^0\d{9,10}\$'
date_of_birth	Missing
date_of_birth	must be in format 'dd-MM-yyyy'
date_of_birth	must be in between 54 and 20 years before current
identity_card_id	missing
identity_card_id	must be in pattern '^(\d{9} \d{12})\$'
issue_date	missing
issue_date	must be in format 'dd-MM-yyyy'
issue_date	must be in between year 1900 and yesterday
issue_date	must be at most 15 years before current
issue_date	must be after date_of_birth
issue_place	missing
issue_place	does not Exist
gender	missing
email	must be in email format
employment_type	missing
employment_type	does not Exist

employment_type	invalid for product_type
product_type	missing
product_type	invalid
loan_amount	missing
loan_amount	invalid
loan_tenor	missing
loan_tenor	invalid
image_selfie	missing
image_selfie	must be in pattern '^PID_(\d{9})\d{12})_0\d{9,10}_\w+\.pdf\$', as 'PID_[identity_card_id]_[phone_number]_[partner_code][ti mestamp(epoch milli)].pdf'
image_selfie	invalid for identity_card_id
image_selfie	invalid for phone_number
image_selfie	not Exist in SFTP
image_selfie	missing
image_id_card	invalid for identity_card_id
image_id_card	invalid for phone_number
image_id_card	not Exist in SFTP
tem_province	missing
tem_province	does not Exist
tem_district	missing
tem_district	does not Exist
tem_ward	missing
tem_ward	does not Exist
permanent_province	missing
permanent_province	does not Exist
permanent_district	missing
permanent_district	does not Exist
permanent_ward	missing
permanent_ward	does not Exist

permanent_address	missing
permanent_address	does not Exist
profession	missing
profession	does not Exist
monthly_income	missing
married_status	missing
married_status	does not Exist
loan_purpose	missing
loan_purpose	does not Exist
other_contact	missing
other_contact	does not Exist
relation_1	missing
relation_1	does not Exist
relation_1_name	missing
relation_1_name	must not contains multiple consecutive spaces or (')
relation_1_name	must not contains character (') at the end or beginning
relation_1_name	must only contains Vietnamese characters or character (')
relation_1_phone_number	missing
relation_1_phone_number	must be in pattern '^0\d{9,10}\$'
relation_2	missing
relation_2	does not Exist
relation_2_name	missing
relation_2_name	must not contains multiple consecutive spaces or (')
relation_2_name	must not contains character (') at the end or beginning
relation_2_name	must only contains Vietnamese characters or character (')
relation_2_phone_number	must be in pattern '^0\d{9,10}\$'
lending_method	does not Exist
business_date	does not Exist

business_date	must be in format 'dd-MM-yyyy'
business_license_number	does not Exist
annual_revenue	does not Exist
annual_revenue	must be number
annual_profit	does not Exist
annual_profit	must be number
monthly_revenue	does not Exist
monthly_revenue	must be number
monthly_profit	does not Exist
monthly_profit	must be number
3rd Party_duration	does not Exist
sales_code	missing
sales_code	does not Exist

## 1.4 API – GET OFFER LIST

This service describes in detail the call that is dialled from 3<sup>rd</sup> party system to EC for the purpose of getting the offer list.

Besides, EC also provide information relevant to list of offers in API – Update status when the status reach “Validated”. However, 3<sup>rd</sup> party can be proactive to get offer list from EC through this API.

### 1.4.1 Request param:

Category	Parameter	Description
Test environment		
Header	Authorization	Bearer < access_token >
	Accept	Application/json
	Content-Type	Application/json

	Method	GET
Body	<ul style="list-style-type: none"> <li>See below table for data request</li> </ul>	

Parameter	Mandatory	Type	Explanation
request_id	Y	String	Request_id that is used at the Full loan API
proposal_id	Y	string	Financing proposal number

#### 1.4.2 Response:

Parameter	Mandatory	Type	Explanation
code	Y	String	
message	Y	string	
data	Y	Object	
data.request_id	Y	String	Request code of API – Loan Request that recognize the customer who has submitted loan request before.
data.partner_code	Y	String	
data.proposal_id	N	String	Financing proposal that is only generated for a case that has received offers.
data.contract_number	N	String	Contract number that is only generated for a case that has selected the offer.
data.offer_list	N	Array	Optional information

#### <offer\_list>

Parameter	Type	Explanation
data.offer_list[i]		[i] =Index item
data.offer_list[i].offer_id		Offer code
data.offer_list[i].offer_amount	Number	Offer amount for main offer



data.offer_list[i].interest_rate	Number	Nominal rate
data.offer_list[i].monthly_installment		Installment amount including all financed insurances, and all other periodical Fees/Services...
data.offer_list[i].offer_tenor	Number	Number of installments
data.offer_list[i].min_financed_amount	Number	Min financed amount of variant
data.offer_list[i].max_financed_amount	Number	Max financed amount of variant
data.offer_list[i].offer_var	Number	Reference of offer variant
data.offer_list[i].offer_type	A	Offer Type (Main, Positive, Negative, True Negative) <ul style="list-style-type: none"> <li>• Main = M</li> <li>• Positive = P</li> <li>• Negative = N</li> </ul> True Negative = T
data.offer_list[i].insurance_list	List Object	

#### < insurance\_list >

Parameter	Type	Explanation
data.offer_list[i].insurance_list[j]	List Object	[j] =Index item
data.offer_list[i].insurance_list[j].insurance_type	A(30)	Insurance/Service Type – BASIC Linked to offer
data.offer_list[i].insurance_list[j].insurance_amount	Number	Total Insurance Amount

data.offer_list[i].insurance_list[j].percentage_insurance	A	percentageInsurance1
data.offer_list[i].insurance_list[j].base_calculation	A	Base of Calculation (RA or RANI)

**Request Example:**

```
{
  "code": "OBTAINED",
  "message": "Offers obtained.",
  "data": {
    "request_id": "MOBI1603788877457",
    "offer_list": [
      {
        "offer_id": "1060148",
        "offer_amount": 10000000,
        "interest_rate": 57.0,
        "monthly_installment": 1968000.0,
        "offer_tenor": 6,
        "min_financed_amount": null,
        "max_financed_amount": null,
        "offer_variant": 5052,
        "offer_type": "M",
        "insurance_list": [
          {
            "insurance_type": "PREM",
            "insurance_amount": 246000.0,
            "percentage_insurance": 0.41,
            "base_calculation": "RANI"
          },
          {
            "insurance_type": "BASC",
```

```

        "insurance_amount": 198000.0,
        "percentage_insurance": 0.33,
        "base_calculation": "RANI"
    }
]
}
]
}
}

```

## 1.5 API - SELECT OFFER

This service describes in detail the call that is dialled from 3<sup>rd</sup> party system to EC for the purpose of sending the selected offer.

### 1.5.1 Request body:

Category	Parameter	Description
Test environment		
Header	Authorization	Bearer < access_token >
	Accept	Application/json
	Content-Type	Application/json
	Method	POST
Body	<ul style="list-style-type: none"> <li>See below table for data request</li> </ul>	

Parameter	Mandatory	Type	Explanation
loan_request_id	Y	String	The code is responded in the Offer List API.

partner_code	Y	String	
selected_offer_id	Y	Number	Offer code
selected_offer_amount	Y	Number	Offer amount for main offer
selected_offer_insurance_type	Y	A(30)	Insurance/Service Type – BASIC Linked to offer

**Request Example:**

```
{
  "loan_request_id": "20102920292",
  "partner_code ": "DGT",
  "selected_offer_id": "1060148",
  "selected_offer_amount": "10000000",
  "selected_offer_insurance_type": "PREM"
}
```

**1.1. Response:**

Category	Parameters/Description
status_code	Http status code ( <i>find more in <a href="#">6.1 HTTP Response status</a></i> )
body	{ } Object

Parameter	Type	Explanation
code	String	Result of request
message	String	Content detail

data	String	Object

<data>

Parameter	Type	Explanation
request_id	String	Result of request
loan_request_id	String	Loan_id

#### **Response Example:**

```
{
  "code": "RECEIVED",
  "message": "The offer selection has been received and is being processed.",
  "data": {
    "proposal_id": "201909382723",
    "loan_request_id": "201909382723"
  }
}
```

## **1.6 API - UPDATE STATUS**

This API service describes in detail the rest call that 3<sup>rd</sup> listen from EC for the purpose of updating the status change of a loan request and the list of offers (if any).

Category	Parameter	Description
Test environment		
Header	Authorization	clientId: <TBD by 3RD PARTY> clientSecret: <TBD by 3RD PARTY> Method: Bearer authentication
	Accept	application/json
	Content-Type	application/json

	Method	POST
Body	See below table for data request	

### 1.6.1 Request body

Parameter	Mandatory	Type	Explanation
code	Y	String	
message	Y	string	
data	Y	Object	
data.request_id	Y	String	Request code of API – Loan Request that recognize the customer who has submitted loan request before.
data.partner_code	Y	String	
data.proposal_id	N	String	Financing proposal that is only generated for a case that has received offers.
data.contract_number	N	String	Contract number that is only generated for a case that has selected the offer.
data.reject_reason	N	String	Reject reason
data.offer_list	N	Array	Optional information

#### <offer\_list>

Parameter	Type	Explanation
data.offer_list[i]		[i] =Index item
data.offer_list[i].offer_id		Offer code
data.offer_list[i].offer_amount	Number	Offer amount for main offer
data.offer_list[i].interest_rate	Number	Nominal rate
data.offer_list[i].monthly_installment		Installment amount including all financed insurances, and all other periodical Fees/Services...

data.offer_list[i].offer_tenor	Number	Number of installments
data.offer_list[i].min_financed_amount	Number	Min financed amount of variant
data.offer_list[i].max_financed_amount	Number	Max financed amount of variant
data.offer_list[i].offer_var	Number	Reference of offere variant
data.offer_list[i].offer_type	A	Offer Type (Main, Positive, Negative, True Negative) <ul style="list-style-type: none"> <li>• Main = M</li> <li>• Postive = P</li> <li>• Negative = N</li> </ul> True Negative = T
data.offer_list[i].insurance_list	List Object	

< insurance\_list >

Parameter	Type	Explanation
data.offer_list[i].insurance_list[j]	List Object	[j] =Index item
data.offer_list[i].insurance_list[j].insurance_type	A(30)	Insurance/Service Type – BASIC Linked to offer
data.offer_list[i].insurance_list[j].insurance_amount	Number	Total Insurance Amount
data.offer_list[i].insurance_list[j].percentage_insurance	A	percentageInsurance 1
data.offer_list[i].insurance_list[j].base_calculation	A	Base of Calculation (RA or RANI)

Status code



DSA\_UPDATE\_STAT  
US\_v1.1.xlsx

### **Request Sample:**

```
{
  "code": "VALIDATED",
  "message": "Your loan application has been validated with offers.",
  "data": {
    "request_id": "SPO1610530540234",
    "partner_code": "SPO",
```

### **1.6.2 Response**

Category	Parameters/Description
status_code	Http status code ( <i>find more in</i> <a href="#">HTTP Response status</a> )
body	{ } Object, refer to below table for reference

Parameter	Type	Explanation
Code	String	status of request
Message	String	Content detail

### **Response Sample:**

```
{
  "status_code": "200",
  "body": {
    "code": "0",
    "message": "Success"
  }
}
```

### **1.6.3 Error table**

Code	Value
0	Success
1	Wrong / invalid key



2	Wrong / invalid params
3	Lead does not Exist
4	Invalid lead status
5	Cannot override final lead status
6	No affected result

## 1.7 Non-functional Requirement

### 1.7.1 User & Role

The authorized users are DSA agents who has verified successfully and created Extranet accounts. The account must be still available while using the channel to connect the EC system.

#### 1.7.2 Restrict HTTPS methods:

- Apply a whitelist of permitted HTTP Methods e.g. GET, POST, PUT
- Reject all requests not matching the whitelist with HTTP response code 405 Method not allowed Make sure the caller is authorized to use the incoming HTTP method on the resource collection, action, and record

#### 1.7.3 Input validation:

- Validate input: Using the format in description field of each parameters in the specifications.
- Reject unexpected/illegal content

#### 1.7.4 Validate request content types:

- Reject requests containing unexpected or missing content type headers with HTTP response status 406 Unacceptable or 415 Unsupported Media Type
- For XML content types ensure appropriate XML parser hardening, see the cheat sheet
- Avoid accidentally Exposing unintended content types by Explicitly defining content types e.g. Jersey (<https://jersey.github.io/>) (Java) @consumes("application/json"); @produces("application/json"). This avoids XXE-attack vectors for Example.

#### 1.7.5 Send safe response content types:

- Do NOT simply copy the Accept header to the Content-type header of the response.
- Reject the request (ideally with a 406 Not Acceptable response) if the Accept header does not specifically contain one of the allowable types
- Ensure sending intended content type headers in your response matching your body content e.g. "application/json" and not "application/javascript"

#### 1.7.6 Management endpoints:

- Avoid Exposing management endpoints via Internet.
- If management endpoints must be accessible via the Internet, make sure that users must use a strong authentication mechanism, e.g. multi-factor.

#### 1.7.7 Error handling:

- Respond with generic error messages - avoid revealing details of the failure unnecessarily
- Do not pass technical details (e.g. call stacks or other internal hints) to the client.

#### 1.7.8 Audit logs:

- Write audit logs before and after security related events.

#### 1.7.9 Security headers:

- To make sure the content of a given resources is interpreted correctly by the browser, the server should always send the Content-Type header with the correct Content-Type, and preferably the Content-Type header should include a charset. The server should also send an X-Content-Type-Options: nosniff to make sure the browser does not try to detect a different Content-Type than what is actually sent (can lead to XSS)

#### 1.7.10 Sensitive information in HTTP requests:

- In POST/PUT requests sensitive data should be transferred in the request body or request headers
- In GET requests sensitive data should be transferred in an HTTP Header

#### 1.7.11 HTTP return code:

Response Code	Description
200	OK. Generic successful Execution.
201	Create Used as a response to POST method Execution to indicate successful creation of a resource.
400	Bad Request Your request could not be understood by the server. This may be due to the data payload is not in the Expected format.

401	Unauthorized The request requires authentication, and none was provided.
403	Forbidden Request failed because you do not have authorization to access a specific resource.
404	Not Found. The specified object could not be found.
429	Too many Requests You Exceeded the rate limit
500	Internal Server Error We had a problem with our server. Report the issue or try again later.
503	Service Unavailable Web service is not available