

New Billing Project

ICP Enquiry (Billing) API Specifications Part 2

Revision History

Revision	Date	Description	Author
1.0	Jan 13, 2025	The 2nd list of ICP Enquiry that are interfaced with new billing API	Claudia Fung
1.1	Feb 20, 2025	Modify API to support prepaid parallel run indicator New function: queryAttributeBySubscription	Claudia Fung
	Jul 12, 2025	Modify payment/transactionHistory API by adding output parameter totalAmount	Claudia Fung

CONTENTS

OBJECTIVES	4
ICP ENQUIRY (BILLING) API SPECIFICATIONS.....	4
1. <i>Payment Method Description.....</i>	<i>4</i>
2. <i>Auto Payment Details.....</i>	<i>6</i>
3. <i>MSISDN Class.....</i>	<i>8</i>
4. <i>HLR.....</i>	<i>10</i>
5. <i>MSISDN Type</i>	<i>12</i>
6. <i>MSISDN for SIM / IMSI.....</i>	<i>14</i>
7. <i>Disconnect Type.....</i>	<i>16</i>
8. <i>Query Attributes by Account</i>	<i>18</i>
9. <i>Query Attributes by Customer.....</i>	<i>21</i>
10. <i>Query Attributes by Subscription</i>	<i>24</i>
11. <i>Subscriber Status</i>	<i>27</i>
12. <i>Subscriber Other Details.....</i>	<i>30</i>
13. <i>Customer Other Details</i>	<i>33</i>
14. <i>Payment Transasction History.....</i>	<i>36</i>
15. <i>Tag On Details</i>	<i>39</i>

Objectives

This document is to provide the list of enquiry functions interfaced with Covalense Billing API for retrieval Billing information for the New Billing Project. Parallel run logic is also included.

ICP Enquiry (Billing) API Specifications

1. Payment Method Description

Purpose

To get payment method name / description

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/account
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/account

API: /paymentMethodDescription

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmcioiI2NGY2Y2I1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkliwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
paymentMethodId	String	Payment method ID		Mandatory
serviceType	String	Service type	Value PREPAID POSTPAID	Mandatory
parallelRun	String	parallelRun indicator to determine the state of the workflow	Value 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM	Mandatory

Sample Request

```
{
  "paymentMethodId": 11,
  "serviceType": "POSTPAID",
  "parallelRun": "0"
}
```

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
paymentMethodDesc	String	Payment Method Description		
paymentMethodCode		Payment Method Name (Code)		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter
-2	N/A	Payment method name is not found

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "paymentMethodDesc": "OTDD :OTHDD - Credit Card DD (HK)",
  "paymentMethodCode": "OTDD "
}
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-1",
  "errorDesc": "Missing input parameter"
}
```

2. Auto Payment Details

Purpose

To get auto payment details for the given customer number

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/account
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/account

API: /autoPaymentDetails

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmcioiI2NGY2Y2I1ZmFiYzRhYWl4MGNIZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
parallelRun	String	parallelRun indicator to determine the state of the workflow	<u>Postpaid parallel run - Value of 1st character</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM <u>Prepaid parallel run – Value of 2nd character</u> 0 – existing system 1 – new billing	Mandatory

Sample Request

```
{
  "custNum": "512345671",
  "parallelRun": "00"
}
```

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
paymentMethodId	String	Payment Method Id		
paymentMethodCode	String	Payment Method Code		
paymentMethodDesc	String	Payment Description		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "paymentMethodId": "11"
  "paymentMethodCode": "OTDD "
  "paymentMethodDesc": "OTDD :OTHDD - Credit Card DD (HK)"
}
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-1",
  "errorDesc": "Missing input parameter"
}
```

3. MSISDN Class

Purpose

To get MSISDN class name and ID

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/inventory
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/inventory

API: /msisdnClass

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmcjOiI2NGY2Y2I1ZmFiYzRhYWl4MGNIWDE1NTUuILCjZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
msisdnClassName	String	Msisdn class name		Optional For no input, it will return all list

Sample Request

<pre>{ "msisdnClassName": "CEO" }</pre>

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
msisdnclasses	JSON Array	Array for Msisdn classes list		
msisdnclassid	String	Msisdn class Id		
msisdnclass	String	Msisdn class name		

Result Code

Result Code	Severity	Description
0	N/A	Success

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "msisdnclasses": {
    "msisdnclassid": "1",
    "msisdnclass": "NORM "
  }, {
    "msisdnclassid": "2",
    "msisdnclass": "VIP "
  }
}
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-999",
  "errorDesc": "Failure to call billing API"
}
```

4. HLR

Purpose

To get HLR id for a network element or vice versa

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/inventory
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/inventory

API: /hlr

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmdiOiI2NGY2Y2I1ZmFiYzRhYWl4MGNIWDE1NTUiLCJpZCI6IjFiYzI4OGlzMjZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
phlr	String	PIN SMC Network		Either phlr or hlrid is mandatory
hlrid	Integer	HLD ID		

Sample Request

```

Enquire by phlr
{
  "phlr": "SMC Network"
}

Enquire by hlrid
{
  "hlrid": 1
}

```

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
phlr	String	Phlr (network element)		
hlrid	String	HLR ID		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameters

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "phlr": "SMC Network",
  "hlrid": "1"
}
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-1",
  "errorDesc": "Missing input parameters"
}
```

5. MSISDN Type

Purpose

To get MSISDN type for the given MSISDN Type ID

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/inventory
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/inventory

API: /msisdntype

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmdiOiI2NGY2Y2I1ZmFiYzRhYWU4MGNIZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
typeld	String	MSISDN Type Id		Mandatory

Sample Request

```
Enquire by typeld
{
  "typeld": "1"
}
```

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
prefix	String	Prefix of this msisdn type		
length	String	Length of this msisdn type		
code	String	Type code for this msisdn type		
name	String	Type name for this msisdn type		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameters
-2	N/A	Invalid MSISDN Type ID provided in the input

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "prefix": "1",
  "length": "2",
  "code": "type code",
  "name": "type name"
}
```

Fail response

```
{
  "resultCode": "-2",
  "errorCode": "10047",
  "errorDesc": "Invalid MSISDN Type ID provided in the input"
}
```

6. MSISDN for SIM / IMSI

Purpose

To get MSISDN for the given SIM or IMSI

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/account
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/account

API: /msisdn

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmdiOiI2NGY2Y2I1ZmFiYzRhYWl4MGNIWDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
imsi	String	Imsi number		Either IMSI or SIM is mandatory
sim	String	SIM number		

Sample Request

```

Enquire by imsi
{
  "imsi": "454065400738722"
}

Enquire by sim
{
  "sim": "89852061907244077228"
}

```

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
subrNum	String	Subscriber number for the input IMSI/ SIM		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameters

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "subrNum": "91234567"
}
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-1",
  "errorDesc": "Missing input parameters"
}
```

7. Disconnect Type

Purpose

To get disconnection description for the given disconnection code

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/account
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/account

API: /disconnectType

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmcioiI2NGY2Y2I1ZmFiYzRhYWl4MGNIZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzJMTQxNjFiM2ZiMWUyNGJlMDAyN2FkliwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
disconnecCode	String	Disconnection Code		Mandatory
serviceType	String	Service Type	POSTPAID PREPAID	
parallelRun	String	parallelRun indicator to determine the state of the workflow	<u>Postpaid parallel run - Value of 1st character</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM <u>Prepaid parallel run – Value of 2nd character</u> 0 – existing system 1 – new billing	Mandatory

Sample Request

```
{
  "disconnectCode": "CVINP",
  "serviceType": "PREPAID",
  "parallelRun": "00"
}
```

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
disconnectDesc	String	Disconnection description		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameters

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "disconnectDesc": "Disconnect due to non-payment"
}
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-1",
  "errorDesc": "Missing input parameters"
}
```

8. Query Attributes by Account

Purpose

To get the value of the attribute at the customer account in New Billing

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/account
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/account

API: /queryAttributesByAccount

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmcioiI2NGY2Y2I1ZmFiYzRhYWY4MGNIZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
accountNum	String	Account number		Mandatory
reqAttributes	Json Array	Array of request attributes for query		
reqAttributes -> name	String	Name of request attributes		
parallelRun	String	parallelRun indicator to determine the state of the workflow	<u>Postpaid parallel run - Value of 1st character</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM <u>Prepaid parallel run – Value of 2nd character</u> 0 – existing system 1 – new billing	Mandatory

Sample Request

```
{
  "accountNum": "00008843.00028",
  "reqAttributes": [{
    "name": "BN_ORDER_NUMBER"
  }, {
    "name": "BN_INSTALLATION_DATE"
  }],
  "parallelRun": "00"
}
```

List of Attribute Name

Attribute Name	Applicable Service
ACCOUNT_IDENTIFICATION	Both
INVOICE_REF	Both
COMPANY_NAME	Both
POSITION	Both
INDUSTRY_CODE	Both
BILL_LANGUAGE	Both
LINE_CATEGORY	Both
SPECIAL_USER_REF	Both
SPECIAL_USER_REF_2	Both
SPECIAL_USER_REF_3	Both
LOGINNOW_AUTHORIZED	Both
REVOKE_CDR_IND	Postpaid
BN_ORDER_NUMBER	Postpaid
BN_INSTALLATION_DATE	Postpaid
TRAVEL_SIM_EXPIRY_DATE	Postpaid
CHILD_TOPUP_ALLOWED	Postpaid
CONTACT_OWNER_COMMUNICATION	Postpaid
PRIMARY_LINE	Postpaid
PREV_USER_PROFILE	Postpaid
JOIN_SMC_DATE	Postpaid
DEALER_CODE	Prepaid
OLD_PLAN_NAME	Prepaid
PRIV_ACTIVE_BOO	Prepaid
DAILY_LOCAL_AMOUNT	Prepaid
MNP_INP_INDICATOR	Prepaid
LIFE_CYCLE_EXPIRY_DATE	Prepaid
VOUCHER_FAIL_COUNTER	Prepaid
OVERSEA_REMITTANCE	Prepaid
NEXT_PLAN_NAME	Prepaid
NEXT_CHARGE_DATE	Prepaid
PLAN_CHANGE_DTM	Prepaid
BLOCK_AUTOPAY_BOO	Prepaid
LAST_CHARGE_DATE	Prepaid
DAILY_OVERSEA_AMOUNT	Prepaid

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
attributes	Json Array	Array of attribute name and value		
attributes -> name	String	Name of the attribute		
attributes -> value	String	Value of the attribute		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "attributes": [{
    "name": "BN_ORDER_NUMBER",
    "value": "123456"
  },
  {
    "name": "BN_INSTALLATION_DATE",
    "value": "2025-01-01"
  }
]}
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-1",
  "errorDesc": "Missing input parameter"
}
```

9. Query Attributes by Customer

Purpose

To get the value of the attribute at the customer number in New Billing

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/account
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/account

API: /queryAttributesByCustomer

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmcioiI2NGY2Y2I1ZmFiYzRhYWY4MGNIZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkliwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
reqAttributes	Json Array	Array of request attributes for query		
reqAttributes -> name	String	Name of request attributes		
parallelRun	String	parallelRun indicator to determine the state of the workflow	<u>Postpaid parallel run - Value of 1st character</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM <u>Prepaid parallel run – Value of 2nd character</u> 0 – existing system 1 – new billing	Mandatory

Sample Request

```
{
  "custNum": "00008843",
  "reqAttributes": [{
    "name": "REGISTRANT"
  }, {
    "name": "SEB_ACCOUNTNUMBER"
  }],
  "parallelRun": "00"
}
```

List of Attribute Name

Attribute Name	Applicable Service
DEALER_CODE	Both
WRITE_OFF	Both
CREDIT_COLL_AGENCY_CODE	Both
BILL_FORMAT_CODE	Both
INDICATORS	Both
REGISTRANT	Both
LOGINNOW_IND	Both
EBILL_ATTACHMENT	Postpaid
PRINT_TAG	Postpaid
DEBIT_LIMIT	Postpaid
DIVERT_CODE	Postpaid
SEB_IND	Postpaid
BILL_EMAIL	Postpaid
SEB_ACCOUNTNUMBER	Postpaid
OLD_CUSTOMER_NUM	Postpaid

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
attributes	Json Array	Array of attribute name and value		
attributes -> name	String	Name of the attribute		
attributes -> value	String	Value of the attribute		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "attributes": [{
    "name": "REGISTRANT",
    "value": "91234567"
  },
  {
    "name": "SEB_ACCOUNTNUMBER",
    "value": "04297934.00001"
  }
]}
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-1",
  "errorDesc": "Missing input parameters"
}
```

10. Query Attributes by Subscription

Purpose

To get the value of the attribute at the customer number and subscriber number in New Billing

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/account
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/account

API: /queryAttributesBySubscription

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmcjOjI2NGY2Y2I1ZmFiYzRhYWY4MGNIZDE1NTUiLCJpZCI6IjFiYzI4OGlZyZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
accountNum	String	Account number		Mandatory
reqAttributes	Json Array	Array of request attributes for query		
reqAttributes -> name	String	Name of request attributes		
parallelRun	String	parallelRun indicator to determine the state of the workflow	<u>Postpaid parallel run - Value of 1st character</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM <u>Prepaid parallel run – Value of 2nd character</u> 0 – existing system 1 – new billing	Mandatory

Sample Request


```
{
  "accountNum": "00008843.00028",
  "reqAttributes": [{
    "name": "LATE_HOMEZONE_REGISTRATION"
  }, {
    "name": "PACKAGE_BUNDLE"
  }],
  "parallelRun": "00"
}
```

List of Attribute Name

Attribute Name	Applicable Service
LATE_HOMEZONE_REGISTRATION	Both
CARD_DISCONNECT_DATE	Both
HPP_BUNDLED_REFERENCE_NUMBER	Both
HPPBB_DUMMY_NUMBER	Both
MBB_BUNDLED_REFERENCE_NUMBER	Both
OPERATOR_BAR_LOST_PHONE	Both
PACKAGE_BUNDLE	Both
SALESPERSON_CODE	Both
TOPUP_MAX	Both
SPLIT_BILL_BLACKBERRY_PACKAGE	TBC by CCB vendor solution to support or not
SPLIT_BILL_SMS_PACKAGE	TBC by CCB vendor solution to support or not
SPLIT_BILL_VOICE_PACKAGE	TBC by CCB vendor solution to support or not

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
attributes	Json Array	Array of attribute name and value		
attributes -> name	String	Name of the attribute		
attributes -> value	String	Value of the attribute		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "attributes": [{
    "name": " LATE_HOMEZONE_REGISTRATION ",
    "value": ""
  },
  {
    "name": "PACKAGE_BUNDLE",
    "value": ""
  }
]
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-1",
  "errorDesc": "Missing input parameter"
}
```

11. Subscriber Status

Purpose

To get subscriber status of the subscriber from the new billing system

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/account
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/account

API: /subscriberStatus

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmtciOiI2NGY2Y2I1ZmFiYzRhYWl4MGNIWDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkliwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
accountNum	String	Account number		Mandatory
parallelRun	String	parallelRun indicator to determine the state of the workflow	<u>Postpaid parallel run - Value of 1st character</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM <u>Prepaid parallel run – Value of 2nd character</u> 0 – existing system 1 – new billing	Mandatory

Sample Request

<pre>{ "accountNum": "00008843.00028", "parallelRun": "0" }</pre>

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
custNum	String	Customer number		
acctNum	String	Account number		
subrNum	String	Subscriber number		
lineCategory	String	Line category		
subrSwOn	Date	Switch on date		
subrSwOff	Date	Switch off date		
subrOffReason	String	Disconnect reason		
subrStatus	String	Subscriber status		
accountStatus	String	Account status		
cardStatus	String	Card status		
cardStatusReason	String	Card status reason		
cardStatusDate	Date	Card status date		
cardCreationDate	Date	Card creation date		
cardStatusTimeoutDate	Date	Card status timeout date		
portInInd	String	Port-in Indicator (mnp inp indicator)		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter

Success response

```
// Enquiry result for prepaid subscriber
{
    "resultCode": "0",
    "errorDesc": "",
    "errorCode": "",
    "custNum": "04297934",
    "acctNum": "04297934.00001",
    "subrNum": "91234567",
    "lineCategory": "P",
    "subrSwOn": "2023-12-31 01:01:01",
    "subrSwOff": "",
    "subrOffReason": "",
    "subrStatus": "OK",
    "accountStatus": "OK",
    "cardStatus": "OK",
    "cardStatusReason": "",
    "cardStatusDate": "2023-12-31 01:01:01",
    "cardCreationDate": "2023-12-30 01:01:01",
    "cardStatusTimeoutDate": "",
    "portInInd": ""
}
```

Fail response

```
{
    "resultCode": "-1",
    "errorCode": "-1",
    "errorDesc": "Missing input parameter"
}
```

12. Subscriber Other Details

Purpose

To get the subscriber other information from the billing system

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/account
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/account

API: /subscriberOtherDetails

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmcjOil2NGY2Y2l1ZmFiYzRhYWl4MGNIWDE1NTUiLCJpZCI6IjFiYzI4OGlZyZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
accountNum	String	Account number		Mandatory
parallelRun	String	parallelRun indicator to determine the state of the workflow	<u>Postpaid parallel run - Value of 1st character</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM <u>Prepaid parallel run – Value of 2nd character</u> 0 – existing system 1 – new billing	Mandatory

Sample Request

<pre>{ "accountNum": "00008843.00028", "parallelRun": "00" }</pre>
--

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
custNum	String	Customer number		
acctNum	String	Account number		
subrNum	String	Subscriber number		
industryCode	String	Industry code		
position	String	position		
company	String	Company		
invoiceRef	String	Invoice Reference		
revokeCdrIndicator	String	Revoke CDR Indicator		
bnOrderNumber	String	BN order number to the subscriber		
bnInstallationDate	Date	BN installation date		
travelSimExpDate	Date	Travel SIM Expiry Date		
joinSmcDate	String	The date to join SMC		
specialUserRef	Date	Special User Reference 1		
specialUserRef2	Date	Special User Reference 2		
specialuserRef3	Date	Special User Reference 3		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter

Success response

```
// Enquiry result for prepaid subscriber
{
    "resultCode": "0",
    "errorDesc": "",
    "errorCode": "",
    "custNum": "04297934",
    "acctNum": "04297934.00001",
    "subrNum": "91234567",
    "industryCode": "INC",
    "position": "SALES",
    "company": "SMC",
    "invoiceRef": "INC11",
    "revokeCdrIndicator": "N",
    "bnOrderNumber": "",
    "bnInstallationDate": "",
    "travelSimExpDate": "",
    "joinSmcDate": "2023-12-31 01:01:01",
    "specialUserRef": "",
    "specialUserRef2": "",
    "specialUserRef3": ""
}
```

Fail response

```
{
    "resultCode": "-1",
    "errorCode": "-1",
    "errorDesc": "Missing input parameter"
}
```


13. Customer Other Details

Purpose

To get the customer other information from the billing system

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/account
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/account

API: /customerOtherDetails

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmcjOiI2NGY2Y2I1ZmFiYzRhYWl4MGNIZDE1NTUiLCJpZCI6IjFiYzI4OGlzMjZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
parallelRun	String	parallelRun indicator to determine the state of the workflow	<u>Postpaid parallel run – Value of 1st character</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM <u>Prepaid parallel run – Value of 2nd character</u> 0 – existing system 1 – new billing	Mandatory

Sample Request

<pre>{ "custNum": "00008843", "parallelRun": "00" }</pre>

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
oldCustomerRef	String	The previous customer number before the changeowner		
caCode	String	Credit collection agent code		
printTag	String	Print tag of this customer		
sebAccountNum	String	SEB account number of this customer		
paymentMethodId	String	The unique reference of payment method		
paymentMethodDesc	String	Payment method description		
bankAcHolder	String	Masked value of bank account holder name		
bankBranchNum	String	Masked value of the branch number		
debtorIdType1	String	ID Type of the first customer of the joint account for the payment by bank		
debtorId1	String	Maksed value of IDBR for the first customer of the joint account		
debtorIdType2	String	ID Type of the 2nd customer of the joint account for the payment by bank		
debtorId2	String	Maksed value of IDBR for the 2md customer of the joint account		
debitLimit	String	Debit limit amount of payment method by bank		
cardNum	String	Masked value of credit card holder name of payment method by card		
cardholder	String	Masked value of		
cardExpiryDate	String	Masked value of credit card expiry date for payment method by card		
cardIssueBank	String	Masked value of credit card expiry date for payment method by card		
lastPaymentDate	String	Last payment date		
dealerCode	String	Dealer code at the customer level		
writeOff	String	Y - customer is write-off N – customer is not write-off		
billFormatCode	String	Bill format code		
ebillAttachment	String	e-Bill attachment		
registrant	String	Registrant		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter

Success response

```
// Enquiry result for prepaid subscriber
{
    "resultCode": "0",
    "errorDesc": "",
    "errorCode": "",
    "caCode": "CC1",
    "printTag": "A1",
    "sebAccountNum": "5123456.00001",
    "paymentMethodId": "11",
    "paymentMethodDesc": "CC. Credit Card",
    "bankAcHolder": "",
    "bankAcNum": "",
    "debtorIdType1": "",
    "debtorId1": "",
    "debtorIdType2": "",
    "debtorId2": "",
    "debitLimit": "",
    "cardNum": "450188XXXXXX9011",
    "cardHolder": "FUNGXXXXXX",
    "cardExpiryDate": "03XXXX",
    "cardIssueBank": "HSBC",
    "lastPaymentDate": "2004-10-05",
    "dealerCode": "PIM00000052",
    "writeOff": "",
    "billFormatCode": "",
    "eBillAttachment": "",
    "registrant": ""
}
```

Fail response

```
{
    "resultCode": "-1",
    "errorCode": "-1",
    "errorDesc": "Missing input parameter"
}
```

14. Payment Transaction History

Purpose

To get the payment transaction history for the given subscriber number, account number and start & end date

Interface Details

Production Endpoints: <https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/payment>

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/payment
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/payment

API: /transactionHistory

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmdiOiI2NGY2Y2I1ZmFiYzRhYWl4MGNIWDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
accountNum	String	Account number		Mandatory
startDate	String	Start date If it's not passed, all of records are extracted	Format YYYY-MM-DD HH24:MI	Optional
endDate	String	End Date	Format YYYY-MM-DD HH24:MI	Optional
parallelRun	String	parallelRun indicator to determine the state of the workflow	<u>Postpaid parallel run – Value of 1st character</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM <u>Prepaid parallel run – Value of 2nd character</u> 0 – existing system 1 – new billing	Mandatory

Sample Request

```
{
  "accountNum": "00008843.00028",
  "startDate": "2024-09-01 00:00",
  "endDate": "2024-12-31 23:59",
  "parallelRun": "00"
}
```

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
custNum	String	Customer number		
acctNum	String	Account number		
subrNum	String	Subscriber number		
paymentCnt	String	Count of payment records		
totalAmount	String	Sum up amount of paymentInfo		
paymentInfo	JSON Array	Payment Information array list		
paymentInfo -> paymentId	String	Payment ID by BRM during payment collect		
paymentInfo -> postedDate	String	Effective date		
paymentInfo -> amount	String	Payment amount		
paymentInfo -> paymentMethodCode	String	Payment method code		
paymentInfo -> openingBalance	String	Opening balance before topup/payment		
paymentInfo -> closingBalance	String	Closing balance after topup/payment		
paymentInfo -> paymentRef	String	Payment Reference		
paymentInfo -> paymentText	String	Payment text		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter

Success response

```
// Enquiry result for prepaid subscriber
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "custNum": "04297934",
  "acctNum": "04297934.00001",
  "subrNum": "91234567",
  "paymentCnt": "2",
  "totalAmount": "700",
  "paymentInfo": {
    "paymentId": "P-12344",
    "postedDate" : "2024-11-30 01:00:00",
    "amount" : "350",
    "paymentMethodCode" : "VC",
    "openingBalance" : "50",
    "closingBalance" : "400",
    "paymentRef" : "N1243655",
    "paymentText" : "|50|0"
  }, {
    "paymentId": "P-12345",
    "postedDate" : "2024-12-30 01:00:00",
    "amount" : "350",
    "paymentMethodCode" : "VC",
    "openingBalance" : "350",
    "closingBalance" : "750",
    "paymentRef" : "N1243656",
    "paymentText" : "|350|0"
  }
}
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-1",
  "errorDesc": "Missing input parameter"
}
```

15. Tag On Details

Purpose

To get the tag-on hierarchy of the main (parent) and secondary (child) subscribers for tag-on (such as family) plan from the billing system

Interface Details

Production Endpoints: TBC

System	Endpoint (UAT)
UAT	https://crm-uat.smartone.com/api/brm/v1/subscription
TYK	https://tykapi-u.hksmartone.com/icp/NBill/brm/v1/subscription

API: /tagOnDetails

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmdiOiI2NGY2Y2I1ZmFiYzRhYWl4MGNIWDE1NTUiLCJpZCI6IjFiYzI4OGl5ZjZjMTQxNjFiM2ZiMWUyNGJIMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
parallelRun	String	parallelRun indicator to determine the state of the workflow	<u>Postpaid parallel run – Value of 1st character</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM <u>Prepaid parallel run – Value of 2nd character</u> 0 – existing system 1 – new billing	Mandatory

Sample Request

```
{
  "custNum": "00008843",
  "parallelRun": "00"
}
```

Response Parameters

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
errorCode	String	Error code return from Covalense billing api		
errorDesc	String	Error description return from Covalense billing api		
tagOnList	JSON Array	Array for tag-on (or family) hierarchy		
tagOnList -> tagOnCode	String	Payment ID by BRM during payment collect		
tagOnList -> parentCustNum	String	Parent customer number		
tagOnList -> parentSubrNum	String	Parent subscriber number		
tagOnList -> childCustNum	String	Child customer number		
tagOnList -> childSubrNum	String	Child subscriber number		
tagOnList -> startDate	String	Start date of the child in the family		
tagOnList -> endDate	String	End date of the dhile in the family		
tagOnList -> status	String	Status of tag-on hierarchy	A – Active C – Cancelled child M – Suspended parent T – Suspended child	

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input customer number

Success response

```
{
  "resultCode": "0",
  "errorDesc": "",
  "errorCode": "",
  "tagOnList": {
    "parentCustNum" : "00001234",
    "parentSubrNum" : "91234567",
    "childCustNum" : "00001234",
    "childSubrNum" : "61234567",
    "startDate" : "2024-10-01 00:00:00",
    "endDate" : "",
    "status": "A",
  }, {
    "parentCustNum" : "00001234",
    "parentSubrNum" : "91234567",
    "childCustNum" : "00001234",
    "childSubrNum" : "51234567",
    "startDate" : "2024-10-01 00:00:00",
    "endDate" : "2024-12-01 00:00:00",
    "status": "C",
  }
}
```

Fail response

```
{
  "resultCode": "-1",
  "errorCode": "-1",
  "errorDesc": "Missing input customer number"
}
```