New Billing Project

ICP Enquiry (Billing) API Specifications
(Part 1)

Revision History

Revision	Date	Description	Author
1.0	31-Oct-2024	List of ICP Enquiry that are interfaced with new billing API	Claudia Fung
1.1	21-Jul-2025	Modify accountBalance to add input parameter isShopNSave	Claudia Fung
	6-Aug-2025	Modify vasDetails to add new parameters	Claudia Fung

CONTENTS

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. Result Code Definition

Result Code	Severity	Code Description
0	N/A	Success
-1	N/A	Not Success. Invalid input argument is provided
	N/A	Not Success. Record canot be found by the provided identifier
-1000 ~ -1999	N/A	Not Success. The request cannot be processed due to violation to the business logic
-2000 ~ -4999	Minor	Error. Unexpected runtime exception
-5000 ~ -8999	Major	Error. Unexpected runtime exception
-9000 ~ -9999	Fatal	Error. Dependent (south-bound) resources outage

2. Get Customer Type

Purpose

To fetch the customer type description and information from the given customer type

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: /customerType

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOiI2NGY2Y2I1ZmFiYzRhYWI4MGNlZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjZiM2ZiMWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
customerType	String	Customer type		Optional Return all records for no input of customer type
serviceType	String	Service type	<u>Value</u> PREPAID POSTPAID	Mandatory
parallelRun	String	parellelRun indicator to determine the state of the workflow	<u>Value</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM	Mandatory

Sample Request

```
{
        "customerType": "TBIRD",
        "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		
customerTypeList	Json Object Array	Customer type list		
customerTypeList -> customerType	String	Customer type		
customerTypeList -> customerTypeDesc	String	The description of custome type e.g. TravelBirdies		
customerTypeList -> paymentTerm	Number	Number of days to pay the bill e.g. 10, 30		
customerTypeList -> serviceType	String	Service type	Value PREPAID POSTPAID	

Result Code

Result Code	Severity	Description
0	N/A	Success

Success response

```
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "customerTypeList": [
        {
        "customerType": "customerType",
        "customerTypeDesc": "Travel Birdies",
        "paymentTerm": "10",
        "serviceType": "POSTPAID"
        }]
}
```

Fail response

```
{
"resultCode": "-9000",
"errorDesc": "Internal Error",
"errorCode": "10010"
}
```

3. Invoice Reference

Purpose

To get the invoice references by subscriber

Note: This API is replaced for the stored procedure in FES – lib_customer.get_invoice_ref

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: /invoiceRef

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOiI2NGY2Y2I1ZmFiYzRhYWI4MGNlZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

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

Sample Request

```
{
        "accountNum": "00008843.00028",
        "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		
invoiceRef	String	Invoice Reference		

Result Code

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

Success response

```
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "invoiceRef": "IA123445"
}
```

Fail response

```
{
"resultCode": "-9000",
"errorDesc": "Internal Error",
"errorCode": "10001"
}
```

4. Account Balance

Purpose

To get the outstanding balance and deposit amount for the customer accounts from the billing system

Note: This API is replaced for FES package – lib_customer.get_cust_osbalance, get_cust_deposit, get_last_inv_date, get_next_inv_date

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: /accountBalance

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOiI2NGY2Y2I1ZmFiYzRhYWI4MGNlZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjJiM2ZiMWUyNGGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Optional
subrNum	String	Subscriber number		Optional
accountNum	String	Account number		Optional
isShopNSave	String	Is ShopNSave subscriber		Optional
parallelRun	String	parellelRun indicator to determine the state of the workflow	<u>Value</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM	Mandatory

Request Combination

Below parameter combination is accepted for this call; otherwise, the error code is returned

custNum	acctNum	subrNum	Response
Y	Y / Null	Y / Null	Get account balance by customer number
Null	Null	Y	Get account balance by active subscriber number
Null	Y	Null	Get account balance by account number

Sample Request

```
Enquiry by customer number
{
        "custNum": "00008843",
        "parallelRun": "0"
}

Enquiry by active subscriber number
{
        "subrNum": "90123456",
        "isShopNSave": "Y",
        "parallelRun": "0"
}

Enquiry by account number
{
        "accountNum": "00008843.00028",
        "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		
lastBillDate	String	Last Bill Date		
nextBillDate	String	Next Bill Date		Optional for prepaid
osBalance	Decimal	Outstanding balance		
depositAmount	Decimal	Total deposit for this customer		
accountBalance	Decimal	Sum of all account balance of this customer Total balance = billed + previous bill unpaid amount (not include unbilled amount) including adjustment		
kioskCustBalance	Decimal	Sum of kiosk o/s balance for all accounts of this customer		Optional for prepaid

Result Code

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

Success response

```
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "lastBillDate": "2024-10-22",
        "nextBillDate": "2024-11-22",
        "osBalance": 4636.04,
        "depositAmount": 500.04,
        "acctBalanceIncAdj": 480.04,
        "kioskCustBalance": 460.04
}
```

Fail response

```
{
"resultCode": "1",
"errorDesc": "Internal Error",
"errorCode": "10001"
}
```

5. Get Bundle Option

Purpose

To get the bundle option in the new billing system

Note: This API is replaced by CRM Packages – cr_prov.cr_get_bundle_opt

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: /getBundleOpt

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOiI2NGY2Y2I1ZmFiYzRhYWI4MGNlZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjJiM2ZiMWUyyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
accountNum	String	Account number		Mandatory for no input of subrNum
subrNum	String	Subscriber number		Mandatory for no input of accountNum
parallelRun	String	parellelRun 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

Request Combination

custNum	accountNum	subrNum	Remarks
Y	Y	Y	Get bundle option for the input customer & account number
Y	Y	Null	Get bundle option for the input customer & account number
Y	Null	Y	Get bundle option for the active subscriber If all subscribers are disconnected, get the subscriber for the last disconnection date

Sample Request

```
Enquiry by customer number, account number
{
        "custNum": "00008843",
        "accountNum": "00008843.00028",
        "parallelRun": "0"
}
Enquiry by customer number, subscriber number
{
        "custNum": "00008843",
        "subrNum": "91234567",
        "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		
serviceType	String	Service type of the subscriber	POSTPAID PREPAID	
bundleOpt	String	Bundle option of this subscriber		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter customer number
-2	N/A	Missing input parameter account or subscriber number

Success response

```
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "serviceType": "POSTPAID",
        "bundleOpt": "12"
}
```

Fail response

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

6. Check Autopay for HPP

Purpose

To check the HPP account whether it needs Autopay and the autopay is blocked or not

Note: This API is designed to get the following variables from GNV billing
1. omrb_pvpaymentmethod4.request_needed_boo
2. omrb_accountattribute.block_autopay_boo

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: /chkAutopayHPP

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOiI2NGY2Y2I1ZmFiYzRhYWI4MGNlZDE1NTUiLCJpZCI6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWWUyNGJlMDAyN2FkIiwiaCI6Im11cm11cjY0In0=

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
accountNum	String	Account number		Mandatory for no input of subrNum
subrNum	String	Subscriber number		Mandatory for no input of accountNum
parallelRun	String	parellelRun indicator to determine the state of the workflow	<u>Value</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM	Mandatory

Request Combination

custNum	accountNum	subrNum	Remarks
Y	Y	Y	Check Autopay for HPP for the input customer & account number
Y	Y	Null	Check Autopay for HPP for the input customer & account number
Y	Null	Y	Check Autopay for HPP for the active subscriber If all subscribers are disconnected, get the subscriber for the last disconnection date

Sample Request

```
Enquiry by customer number, account number
{
        "custNum": "00008843",
        "accountNum": "00008843.00028",
        "parallelRun": "0"
}

Enquiry by customer number, subscriber number
{
        "custNum": "00008843",
        "subrNum": "91234567",
        "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		
reqNeedBoo	String	Payment method for NSP account is autopay or not	T – autopay F – no autopay	Mandatory
blockAutopayBoo	String	Autopay is blocked or not	T – blocked F – not block	Mandatory
imsi	String	IMSI		Mandatory
ratePlan	String	Rate plan of NSP account		Mandatory
nspBillDay	String	Bill day of NSP account		Mandatory
nspBillDate	String	Bill date of NSP account		Mandatory
lineCategory	String	Line category of NSP account		Mandatory
nspCustNum	String	NSP customer number		Mandatory
nspAcctNum	String	NSP account number		Mandatory

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter customer number
-2	N/A	Missing input parameter account or subscriber number

Success response

```
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "reqNeedBoo": "Y",
        "blockAutopayBoo": "N",
        "imis": "454065800000477",
        "ratePlan": "C970",
        "nspBillDay": "05",
        "nspBillDate": "20241105",
        "lineCategory": "F",
        "nspCustNum": "51004000",
        "nspAcctNum": "51004000.00001"
        }]
}
```

Fail response

```
{
"resultCode": "-9000",
"errorDesc": "Internal Error",
"errorCode": "10010"
}
```

7. Customer Details

Purpose

To get the details at the customer account level stored in the new billing system

Note: This API can be referenced from the cs\CustBillInfo.java

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: /customerDetails

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	TBC

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
parallelRun	String	parellelRun 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

```
Enquiry by customer number
{
        "custNum": "00008843",
        "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		
custId	String	Cust ID of the ICP		Mandatory
custType	String	Customer type of the account		Mandatory
billDay	String	Bill day of the account		Mandatory
divertCode	String	Divert code of the account		Optional
loginNowInd	String	LoginNow indicator		Optional
sebAccountNumber	String	SEB account		Optional
payMethodId	String	Payment method Id		Optional
payMethodDesc	String	Payment method description		Optional
lastPaymentDate	String	Last payment date DD-MM-YYYY		Mandatory
dealerCode	String	Dealer code of the account		Optional
indicators	String	1st character: ID Type 2nd character: receive SMC communication 3rd character: IVR broadcast used minutes 4th character: bill language 5th character: bill email reject 6th character: request SMC Pin		Mandatory
billEmail	String	Bill Email		Optional
billLanguage	String	Bill Language		Optional

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter customer number
-2	N/A	Missing input parameter account or subscriber number

Success response

```
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "customerIdentification": "AB-123-X",  // i.e. Cust ID of ICP
        "custType": "PERS",
        "billDay": "7",
        "divertCode": "EWA",
        "loginNowInd": "",
        "sebAccountNumber": "",
        "payMethodId": "1",
        "payMethodDesc": "CASH : Cash",
        "lastPaymentDate": "08-11-2024",
        "dealerCode": "JUP001",
        "indicators": "IYNEYN",
        "billEmail": "abc@gmail.com",
        "billLanguage": "E"
}
```

Fail response

```
{
"resultCode": "-9000",
"errorDesc": "Internal Error",
"errorCode": "10010"
}
```

8. Subscriber Details

Purpose

To get the subscriber details stored in 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: /subscriberDetails

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	TBC

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
accountNum	String	Account number		Mandatory for no input of subrNum
subrNum	String	Subscriber number		Mandatory for no input of accountNum
parallelRun	String	parellelRun indicator to determine the state of the workflow	<u>Value</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM	Mandatory

Request Combination

custNum	accountNum	subrNum	Remarks
Y	Y	Y	Get subscriber details for the input customer & account number
Y	Y	Null	Get subscriber details for the input customer & account number
Y	Null	Y	Get subscriber details for the active subscriber If all subscribers are disconnected, get the subscriber for the last disconnection date

Sample Request

```
Enquiry by customer number, account number
{
        "custNum": "00008843",
        "accountNum": "00008843.00028",
        "parallelRun": "0"
}

Enquiry by customer number, subscriber number
{
        "custNum": "00008843",
        "subrNum": "91234567",
        "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		
accountNumber	String	Returned account number		Optional
subrNumber	String	Returned subscriber number		Optional
lineCategory	String	Line Category		Optional
custId	String	Cust Id of this subscriber		Optional
splitCharge	String	Split Charge		Mandatory
subrOnDate	String	Subscriber switch on date Format: YYYY-MM-DD HH24:MI:SS		Mandatory
subrOffDate	String	Subscriber switch off date Format: YYYY-MM-DD HH24:MI:SS		Mandatory
subrOffReason	String	Disconnection reason		Mandatory
subrStatus	String	Subscriber status		Mandatory
accountStatus	String	Account status		Mandatory
cardStatus	String	Card status for prepaid		Optional
cardStatusReason	String	Card status reason for prepaid		Optional
cardStatusDate	String	Card status date for prepaid Format: YYYY-MM-DD HH24:MI:SS		Optional
cardCreationDate	String	Card status creation date for prepaid Format: YYYY-MM-DD HH24:MI:SS		Optional
cardStatusTimeoutDate	String	Card status timeout date for prepaid Format: YYYY-MM-DD HH24:MI:SS		Optional
mnpInpIndicator	String	MNP or INP indicator for prepaid		Optional
primaryLine	String	Primary line for postpaid subscriber		Optional
imei	String	IMEI of the subscriber		Mandatory
imsi	String	IMSI of the subscriber		Mandatory
sim	String	SIM of the subscriber		Mandatory
ratePlan	String	Rate plan to the subscriber		Mandatory

divertCode	String	Divert code to the subscriber		Mandatory
dealerCode	String	Dealer code to the subscriber		Mandatory
loginNowAuthorized	String	Authorized LoginNow to the subscriber		Optional
contactOwnerComm	String	Contact owner communication indicator		Optional
childTopupAllowed	String	Child Topup allowed flag		Optional

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter account or subscriber number

Success response

```
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "accountNumber": "423456.00001",
        "subrNumber": "98234567",
        "lineCategory": "M",
        "custId": "AZ-S123-S",
        "splitCharge": "Y",
        "subrOnDate": "2024-07-16 10:00:00",
        "subrOffDate": "2024-08-16 10:00:00",
        "subrOffReason": "",
        "subrStatus": "OK",
        "accountStatus": "OK",
        "cardStatus": "Active",
        "cardStatusReason": "Life Cycle State Change by FES API",
        "cardStatusDate": "2024-08-16 10:00:00",
        "cardCreationDate": "2024-05-16 10:00:00",
        "cardStatusTimeoutDate": "2024-09-16 10:00:00",
        "mnpInpIndicator": "",
        "primaryLine": "",
        "imei": "454065307014505",
        "imsi": "454065307014505",
        "sim": "89852062212233075054",
        "ratePlan": "CWB09",
        "divertCode": "PPAID",
        "dealerCode": "OFTD",
        "loginNowAuthorized": "",
        "contactOwnerComm": "",
        "childTopupAllowed": "Y"
}
```

Fail response

```
{
"resultCode": "-9000",
"errorDesc": "Internal Error",
"errorCode": "10010"
}
```

9. Login Authorization

Purpose

To determine whether the subscriber has been used authorized for LoginNow, or the customer account has been registered to LoginNow in the new billing system

Note: This API can be referenced from cs\loginNow\LoginNowHandler.java

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: /loginAuthorization

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	TBC

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
accountNum	String	Account number		Mandatory for no input of subrNum
subrNum	String	Subscriber number		Mandatory for no input of accountNum
parallelRun	String	parellelRun 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

Request Combination

custNum	accountNum	subrNum	Remarks
Y	Y	Y	Get subscriber details for the input customer & account number
Y	Y	Null	Get subscriber details for the input customer & account number
Y	Null	Y	Get subscriber details for the active subscriber If all subscribers are disconnected, get the subscriber for the last disconnection date

Sample Request

```
Enquiry by customer number, account number
{
        "custNum": "00008843",
        "accountNum": "00008843.00028",
        "parallelRun": "0"
}
Enquiry by customer number, subscriber number
{
        "custNum": "00008843",
        "subrNum": "91234567",
        "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		
accountNumber	String	Returned account number		
subrNumber	String	Returned subscriber number		
loginNowInd	String	LoginNow Indicator to the account	Value Y or NULL	
loginNowAuthorized	String	LoginNow Authorized to the subscriber	Value Y or NULL	

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter account or subscriber number

Success response

```
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "accountNumber": "423456.00001",
        "subrNumber": "98234567",
        "loginNowInd": "Y",
        "loginNowAuthorized": ""
}
```

Fail response

```
{
"resultCode": "-9000",
"errorDesc": "Internal Error",
"errorCode": "10010"
}
```

10.Bill Ledger by Account

Purpose

To get the bill ledger details for the customer number from the new billing system. Overdue amount is calculated based on the customer payment due days setting mapped with the customer type.

Note: This API can be referenced from stored procedure CS_BILL_LEDGER.total_cal_bill

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: /billLedgerByAccount

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	TBC

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
accountNum	String	Account number		
subrNum	String	Subscriber number		
overdueDays	String	Overdue Days		Overdue (X days) to be considered to return overdue amount for (X days)
activeAccount	String	Count for all active accounts Or all accounts	Y – active accounts N – all accounts	Mandatory
parallelRun	String	parellelRun 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

Request Combination

custNum	accountNum	subrNum	Remarks
Y	Null	Null	Sum of all accounts under the same customer number
Y	Y	Null	Filter only this account for this customer number
Y	Null	Y	Filter only the account of this subscriber for this customer number

Sample Request

```
Enquiry by customer number, account number to return all overdue days
{
        "custNum": "00008843",
        "accountNum": "00008843.00028",
        "overdueDays": "",
        "activeAccount": "Y",
        "parallelRun": "0"
}

Enquiry by customer number to get the overdue 7 days for all active account
{
        "custNum": "00008843",
        "overdueDays": "7",
        "activeAccount": "Y",
        "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		
custId	String	Customer Identifier		
unBilledAmount	Decimal	Unbilled amount of this customer account		
billedAmount	Decimal	Billed amount of this customer account		
osBalance	Decimal	Outstanding amount of this customer account		
depositAmount	Decimal	Deposit amount of this customer account		
overdueXAmount	Decimal	The ouverdue amount is calculated by the overdue X days for input the overdueDays		
Overdue14Amount	Decimal	The total amount for all invoices overdue within 14 days to this customer account		
Overdue30Amount	Decimal	The total amount for all invoices overdue within 30 days to this customer account		
Overdue60Amount	Decimal	The total amount for all invoices overdue within 60 days to this customer account		
Overdue90Amount	Decimal	The total amount for all invoices overdue within 90 days to this customer account		
Overdue120Amount	Decimal	The total amount for all invoices overdue within 120 days to this customer account		

Result Code

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameter
-2	N/A	Invalid input parameter. Record is not found

Success response

```
Enquiry by customer number without specified overdue day
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "custId": "C-79NRQ",
        "unBilledAmount": 200.21,
        "billedAmount": 200.32,
        "osBalance": 200.43,
        "depositAmount": 200.54,
        "overdue14Amount": 200.65,
        "overdue30Amount": 200.65,
        "overdue60Amount": 200.65,
        "overdue90Amount": 200.65,
        "overdue120Amount": 200.65
}

Enquiry by customer number with the specified overdue 7 days
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "custId": "C-79NRQ",
        "unBilledAmount": 200.21,
        "billedAmount": 200.32,
        "osBalance": 200.43,
        "depositAmount": 200.54,
        "overdueXAmount": 200.65
}
```

Fail response

```
{
"resultCode": "-9000",
"errorDesc": "Internal Error",
"errorCode": "10010"
}
```

11. Bill Ledger by Customer

Purpose

To get the bill ledger details by the customer identification (i.e. HKID or BR) from the new billing system. It will query the sum for all customer reference and account under the ustomer referes. Overdue amount is calculated based on the customer payment due days setting mapped with the customer type.

Note: This API can be referenced from stored procedure CS_BILL_LEDGER.total_cal_bill

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: /billLedgerByCustomer

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	TBC

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
IDRB	String	HKID or IDBR		Mandatory
overdueDays	String	Overdue X Days		Overdue (X days) to be considered to return overdue amount for (X days)
parallelRun	String	parellelRun indicator to determine the state of the workflow	<u>Value</u> 0 – existing system 1 – new billing 2 – parallel run in GNV & new billing in OM	Mandatory

Request Combination

IDBR	Overdue X dayd	Remarks
Y	Null	Sum up all overdue amounts for active accounts / all accounts
Y	Y	Sum up the specified overdue amounts for active accounts / all accounts

Sample Request

```
Enquiry by IDBR without the specified overdue days
{
        "IDBR": "6123456(2)",
        "overdueDays": "",
        "parallelRun": "0"
}


Enquiry by IDBR with the specified overdue 7 days
{
        "IDBR": "6123456(2)",
        "overdueDays": "7",
        "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		
custId	String	Customer Identifier		
unBilledAmount	Decimal	Unbilled amount of this customer account		
billedAmount	Decimal	Billed amount of this customer account		
osBalance	Decimal	Outstanding amount of this customer account		
depositAmount	Decimal	Deposit amount of this customer account		
overdueXAmount	Decimal	Overdue amount for input parameter overdue X days		
Overdue14Amount	Decimal	The total amount for all invoices overdue within 14 days to this customer account		
Overdue30Amount	Decimal	The total amount for all invoices overdue within 30 days to this customer account		
Overdue60Amount	Decimal	The total amount for all invoices overdue within 60 days to this customer account		
Overdue90Amount	Decimal	The total amount for all invoices overdue within 90 days to this customer account		
Overdue120Amount	Decimal	The total amount for all invoices overdue within 120 days to this customer account		
unBilledAmountActive	Decimal	Unbilled amount of this customer account		
billedAmountActive	Decimal	Billed amount of this customer account		
osBalanceActive	Decimal	Outstanding amount of this customer account		
depositAmountActive	Decimal	Deposit amount of this customer account		
overdueXAmountActive	Decimal	Overdue amount for input parameter overdue X days		

Overdue14AmountActive	Decimal	The total amount for all invoices overdue within 14 days to this customer account		
Overdue30AmountActive	Decimal	The total amount for all invoices overdue within 30 days to this customer account		
Overdue60AmountActive	Decimal	The total amount for all invoices overdue within 60 days to this customer account		
Overdue90AmountActive	Decimal	The total amount for all invoices overdue within 90 days to this customer account		
Overdue120AmountActive	Decimal	The total amount for all invoices overdue within 120 days to this customer account		

Result Code

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

Success response

```
Enquiry by IDBR without specified overdue day
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "custId": "C-79NRQ",
        "unBilledAmount": 200.21,
        "billedAmount": 200.32,
        "osBalance": 200.43,
        "depositAmount": 200.54,
        "overdue14Amount": 200.65,
        "overdue30Amount": 200.65,
        "overdue60Amount": 200.65,
        "overdue90Amount": 200.65,
        "overdue120Amount": 200.65,
        "unBilledAmountActive": 200.21,
        "billedAmountActive": 200.32,
        "osBalanceActive": 200.43,
        "depositAmountActive": 200.54,
        "overdue14AmountActive": 200.65,
        "overdue30AmountActive": 200.65,
        "overdue60AmountActive": 200.65,
        "overdue90AmountActive": 200.65,
        "overdue120AmountActive": 200.65
}

Enquiry by IDBR  with the specified overdue 7 days
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "custId": "C-79NRQ",
        "unBilledAmount": 200.21,
        "billedAmount": 200.32,
        "osBalance": 200.43,
```

```
        "depositAmount": 200.54,
        "overdueXAmount": 200.65,
        "unBilledAmountActive": 200.21,
        "billedAmountActive": 200.32,
        "osBalanceActive": 200.43,
        "depositAmountActive": 200.54,
        "overdueXAmountActive": 200.65
}
```

Fail response

```
{
"resultCode": "-9000",
"errorDesc": "Internal Error",
"errorCode": "10010"
}
```

12.VAS Details

Purpose

To get the vas details for the subscriber for postpaid and prepaid service

Note: This API can be referenced from stored procedure

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: /vasDetails

Type: REST

Method: POST

Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	TBC

Request Parameters

Parameter	Data Type	Description	Possible Value	Remarks
custNum	String	Customer number		Mandatory
accountNum	String	Account number		Mandatory for no input of subrNum
subrNum	String	Subscriber number		Mandatory for no input of accountNum
vasCode	String	Specifiy to get Vas details for this input Vas Bill Code		
activateFlag	String	Specified to get active Vas details for the vas bill code	Y – get active bill code N – get all bill code	
parallelRun	String	parellelRun 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

Request Combination

custNum	accountNum	subrNum	Remarks
Y	Y	Y	Get subscriber details for the input customer & account number
Y	Y	Null	Get subscriber details for the input customer & account number
Y	Null	Y	Get subscriber details for the active subscriber If all subscribers are disconnected, get the subscriber for the last disconnection date

Sample Request

```
Enquiry by customer number, account number, active vas bill code
{
        "custNum": "00008843",
        "accountNum": "00008843.00028",
        "vasCode": "DETL ",
        "activateFlag": "Y",
        "parallelRun": "0"
}

Enquiry by customer number, subscriber number
{
        "custNum": "00008843",
        "subrNum": "91234567",
        "parallelRun": "0"
}
```

Response Parameters

Parameter	Data Type	Description	Possible Value	Rem arks
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		
vasDtl	JSON Array	Array containing each vas details		
vasDtl -> vasCode	String	Vas bill code		
vasDtl -> purchasedBundleId	String	Poid_id / ccb purchased deal		
vasDtl -> activationDate	Date	Vas activation date	YYYY-MM-DD HH24:MI:SS	
vasDtl -> purchaseStartDate	Date	Vas purchase start date	YYYY-MM-DD HH24:MI:SS	
vasDtl -> purchaseEndDate	Date	Vas purchase end date	YYYY-MM-DD HH24:MI:SS	
vasDtl -> status	String	Status of purchased bundle		
vasDtl -> reason	String	Reason of the status change		
vasDtl -> recurringFlag	String	One-off or recurring charges	0 – One-off 1 - Recurring	
vasDtl -> chargingCycleFlag	String	Unit of charging cycle	1 – recurring daily VAS 3 – recurring hourly VAS	
vasDtl -> chargingCyclePeriod	Integer	The period of charging cycle	0 – One-off 1 – Recurring cycle	
vasDtl -> quantity	Integer	Quantity of purchase		
vasDtl -> lastChargingDate	Date	Last charged date of the VAS	YYYY-MM-DD HH24:MI:SS	
vasDtl -> nextChargingDate	Date	Next charging date of the VAS	YYYY-MM-DD HH24:MI:SS	
vasDtl -> monthlyCharge	Decimal	Monthly charge of the VAS		
vasDtl -> terminationDate	Date	Vas termination date	YYYY-MM-DD HH24:MI:SS	

Result Code

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

Success response

Enquiry by account number for the active specified vas bill code
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "vasDtl": [
                "vasCode": "C48",
                "vasProductId": "4",
                "purchasedBundleId": "87846653",
                "activationDate": "2025-07-15 17:33:24",
                "purchaseStartDate": "2025-07-15 17:33:20",
                "purchaseEndDate": "",
                "status": "1",
                "reason": "",
                "recurringFlag": "0",
                "chargingCycleFlag": "0",
                "chargingCyclePeriod": "30",
                "quantity": "1",
                "lastChargingDate": "2024-08-16 10:00:00",
                "nextChargingDate": "2024-09-16 10:00:00",
                "monthlyCharge": 20,
                "terminationDate": ""
]}
Enquiry by account number for all vas bill code
{
        "resultCode": "0",
        "errorDesc": "",
        "errorCode": "",
        "vasDtl": [
                "vasCode": "C48",
                "vasProductId": "4",
                "purchasedBundleId": "87846653",
                "activationDate": "2025-08-01 15:13:26",
                "purchaseStartDate": "2025-08-01 15:07:16",
                "purchaseEndDate": "",
                "status": "1",
                "reason": "",
                "recurringFlag": "1",
                "chargingCycleFlag": "0",
                "chargingCyclePeriod": "1",
                "quantity": "1",
                "lastChargingDate": "2025-08-01 00:00:00",
                "nextChargingDate": "2025-09-01 00:00:00",
                "monthlyCharge": 20,
                "terminationDate": ""
        ], [
                "vasCode": "VM15",
                "vasProductId": "4",
                "purchasedBundleId": "87846650",
                "activationDate": "2025-08-01 15:13:26",
                "purchaseStartDate": "2025-08-01 15:07:16",
                "purchaseEndDate": "",
                "status": "1",
                "reason": "",
                "recurringFlag": "1",
                "chargingCycleFlag": "0",
                "chargingCyclePeriod": "1",
                "quantity": "1",
                "lastChargingDate": "2025-08-01 00:00:00",
                "nextChargingDate": "2025-09-01 00:00:00",
                "monthlyCharge": 20,
                "terminationDate": ""
]}

Fail response

```
{
        "resultCode": "-9000",
        "errorDesc": "Internal Error",
        "errorCode": "10010"
}
```