

# **New Billing Project**

**ICP Enquiry API (Part 3) Specifications** 



# **Revision History**

Revision	Date	Description	Author
1.0	25-Mar-2025	List of ICP Enquiry provided for new billing project that are NOT interfaced with new billing API	Claudia Fung
	8-Apr-2025	Add new API hasPrepaidCardExpStatus	Claudia Fung
	18-Apr-2025	Add new API for e-SIM handling	Claudia Fung
	29-Apr-2025	Add new API for plan basic information	Claudia Fung
1.1	13-Jun-2025	Add new API for dealer code	Eva Wu
	21-Jul-2025	Add new API for payment method	Eva Wu
	2-Sep-2025	Modify plan details with face value, admin fee and auto topup plan	Claudia Fung



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# **Objectives**

This document is to provide the list of enquiry functions designed for new billing project that are NOT interfaced with new billing API.

# **ICP Enquiry API (Part 3) 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 cannot 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. Unexpectd runtime exception
-9000 ~ - 99999	Fatal	Error. Dependent (south-bound) resources outage

#### 2. Reserve Number List

#### **Purpose**

Get the reserved number list under the reserved key i.e. HKIDB Refer to /om4/OMAPI/OMNewActService/ReserveList

**Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /reserveList

Type: REST

Method: POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOiI2NGY2Y2I1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCI6IJFiYzI4OGIzYzZJMTQxNjFiM2ZiMWUyNGJIMD
	AyN2FkliwiaCl6lm11cm11cjY0ln0=



#### **Request Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
reserveKey	String	Reserved key – IDBR	E101101(5)	Encrypted

#### **Sample Request**

#### **Response Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
resultMsg	String	Respons message		
numberList	Jason Array	Number List Array		
numberList -> reserveNum	String	Reserved number		

#### **Result Code**

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameters
-1000	N/A	No reserved number

#### Success response

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



#### 3. Number List

#### **Purpose**

Get the number list filtered by the dealer code and hlr type Refer to /om4/OMAPI/OMNewActService/NumberList

**Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /numberList

Type: REST

**Method:** POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOiI2NGY2Y2I1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCI6IJFiYzI4OGIzYzZJMTQxNJFiM2ZiMWUyNGJIMD
	AyN2FkliwiaCl6Im11cm11cjY0In0=

#### **Request Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
dealerCode	String	Dealer Code		Mandatory
numberType	String	Type of the number list	M, F, H, HGC etc	Optional
		Take mobile number list if		
		it's not specified (or input)		
numOfRec	String	Number of records returned to		Mandatory
		the number list		



### **Sample Request**

```
Inquire about the number list by the dealer code and number type and numOfRec

{
         "dealerCode": "SH05600000",
         "numberType": "F",
         "numOfRec": 4
}

Inquire about the number list by the dealer code and numOfRec for mobile

{
         "dealerCode": "SH05600000",
         "numOfRec": 4
}
```

#### **Response Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
resultMsg	String	Respons message		
numberList	Jason Array	Number List Array		
numberList -> availNum	String	Aavilable number under		
		the input dealer code		

#### **Result Code**

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameters
-1000	N/A	No available number
-2000	Minor	Current om_gnv_msisdn_list table cannot be found



#### Success response

```
{
    "resultCode": "0",
    "resultMsg": "SUCCESS",
    "numberList": {
        "availNum": "91234567"
        }, {
            "availNum": "91234568"
        }, {
            "availNum": "91234569"
        }, {
            "availNum": "91234570"
        }
    }
}
```

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



#### 4. China Number List

#### **Purpose**

Get the available China (U1C2N) numbering list from RMM (For frontend to select the China number in Change Form)

**Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /numberListCU

Type: REST

**Method:** POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOil2NGY2Y2l1ZmFiYzRhYWl4MGNlZDE1NTUiLCJpZCl6ljFiYzl4OGlzYzZjMTQxNjFiM2ZiMWUyNGJlMD
	AyN2FkliwiaCl6Im11cm11cjY0In0=

#### **Request Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
numOfRec	String	Number of records returned to		Mandatory
		the number list		



Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
resultMsg	String	Response message		
numberListCU	Jason Array	Number List Array		
numberListCU -> availNum	String	Available CU number		

#### **Result Code**

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameters
-1000	N/A	No available number

#### Success response

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



# 5. Get Available Number from RMM

#### **Purpose**

Get the available number from RMM based on different number type (Refer to OM package – getNextResource2 and GET\_NEXT\_RESOURCE.fnc)

**Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /getRmmNumber

Type: REST

Method: POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOil2NGY2Y2I1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCl6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJIMD
	AyN2FkliwiaCl6Im11cm11cjY0In0=

#### **Request Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
typeld	String	Type id for numbering	3	Mandatory
phlr	String	pHLR	0	Mandatory
vasType	String	Vas Type for numbering	ISR	Mandatory

```
Get the available number from RMM table

{
        "typeId": "3",
        "phIr": "0",
        "vasType": "ISR"
}
```



Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
resultMsg	String	Response message		
msisdn	String	Available number		

#### **Result Code**

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameters
-1000	N/A	No available number

#### Success response

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



# 6. Get Dummy Available SIM for HomeTel

#### **Purpose**

Get the dummy available imsi/sim number from RMM for HomeTel (Refer to OM package – getNextResource2 and GET\_NEXT\_RESOURCE.fnc)

**Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /getDummySimHomeTel

Type: REST

Method: POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOil2NGY2Y2I1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCl6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJIMD
	AyN2FkliwiaCl6Im11cm11cjY0In0=

#### **Request Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
typeld	String	Type id for numbering	4	Mandatory
phlr	String	pHLR	4	Mandatory
vasType	String	Vas Type for numbering	FBTEL	Mandatory

```
Get the available number from RMM table

{
        "typeId": "4",
        "phIr": "4",
        "vasType": "FBTEL"
}
```



Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
resultMsg	String	Response message		
imsi	String	Available IMSI number		
sim	String	Available SIM number		

#### **Result Code**

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameters
-1000	N/A	No available number

#### Success response

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



# 7. eSim Information

#### **Purpose**

To get e-Sim Information by the input sim number. If no eSIM information is returned, this sim number is not belonging to e-SIM

#### **Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /eSimInfo

Type: REST

Method: POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOil2NGY2Y2I1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCl6IjFiYzI4OGIzYzZjMTQxNjFiM2ZiMWUyNGJIMD
	AyN2FkliwiaCl6Im11cm11cjY0In0=

#### **Request Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
eSim	String	eSim number		



Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
resultMsg	String	Response message		
isEsim	String	Is the input sim number belonging to	Y – is e-sim	
		eSim or not	N – not e-sim	
status	String	Status of eSIM	Free	
			Reserved	
esimType	String	Type of eSIM	NSA_ESIM	
			SA_ESIM	
esimQrCode	String	eSIM QR Code		
imsi	String	IMSI of e-SIM		
lastUpdateDtm	String	Last upate date	YYYY-MM-DD	
			HH24:MI:SS	
lastUpdateBy	String	Last update by		

#### **Result Code**

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

#### Success response

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



#### 8. eSim Reserve

#### **Purpose**

To reserve eSIM if it is free for postpaid service only. For no input of eSIm, the system will fetch the available e-Sim and do reservation and then returned to the caller

#### **Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /eSimGetReserved

Type: REST

Method: POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOil2NGY2Y2l1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCl6IjFiYzl4OGIzYzZjMTQxNjFiM2ZiMWUyNGJIMD
	AyN2FkliwiaCl6Im11cm11cjY0In0=

#### **Request Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
eSimType	String	eSIM Type	NSA_ESIM	Mandatory
			SA_ESIM	
channel	String	Channel	BM / SA / Online	Mandatory
username	String	Who to reserve eSIM		Mandatory
eSim	String	e-SIM number		Optional



Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
resultMsg	String	Response message		
oEsim	String	Returned eSim that has been reserved		

#### **Result Code**

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

#### Success response

```
{
    "resultCode": "0",
    "resultMsg": "SUCCESS",
    "oEsim": "89852069302150005383"
}
```

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



### 9. eSim Support

#### **Purpose**

To support eSIM (Refer om\_esim.support\_esim)

**Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /eSimSupport

Type: REST

**Method:** POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOil2NGY2Y2I1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCI6IJFiYzI4OGIzYzZjMTQxNJFiM2ZiMWUyNGJIMD
	AyN2FkliwiaCl6Im11cm11cjY0In0=

#### **Request Parameters**

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

```
Get the available number from RMM table

{
        "custNum": "51234567",
        "subrNum": "91234567",
        "paralleRun": "00"
}
```



Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result	See below table	
resultMsg	String	Response message		
isEsimSupport	String	Check eSim support to this subscriber	Y – support eSIM	
			N – not support	

#### **Result Code**

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

#### Success response

```
{
    "resultCode": "0",
    "resultMsg": "SUCCESS",
    "isEsimSupport": "Y"
}
```

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



#### 10.Plan Details

#### **Purpose**

To provide plan details such as name, basic (inter) minutes and intra minutes

#### **Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /planInfo

Type: REST

**Method:** POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOil2NGY2Y2I1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCI6IJFiYzI4OGIzYzZJMTQxNjFiM2ZiMWUyNGJIMD
	AyN2FkliwiaCl6Im11cm11cjY0In0=

#### **Request Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
planName	String	Rate plan name/code	3GAAZ	



Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Response result See below table		
resultMsg	String	Response message		
planDesc	String	Plan code description in English		
		Stored in new billing system		
inter	String	Basic minutes of this plan		
intra	String	Intra minutes of this plan		
peak	String	Peak minutes of this plan		
offPeak	String	Off Peak minute of this plan	Off Peak minute of this plan	
planStart	String	Plan start date		
planEnd	String	Plan end date	Plan end date	
planCharge	String	Plan charge amount		
faceValue	String	Face value for the plan		
adminFee	String	Admin Fee for the plan		
isAutoTopupPlan	String	Postpaid plan has auto topup feature	Y – auto-topup Plan	
			N – not auto-topup plan	
			Null – N/A for prepaid	
serviceType	String	Service type of the plan	POSTPAID	
			PREPAID	

#### **Result Code**

Result Code	Severity	Description
0	N/A	Success
-1	N/A	Missing input parameters
-2	N/A	No such plan name (or code)



#### Success response

```
{
    "resultCode": "0",
    "resultMsg": "SUCCESS",
    "planDesc": "($12adm) 1GB iPhone Plan",
    "inter": "700.00",
    "intra": "400.00",
    "peak": "1.50",
    "offPeak": "0.5",
    "planStart": "2025-01-01",
    "planEnd": "2028-12-31",
    "planCharge": "138.00",
    "faceValue": "",
    "adminFee": "12",
    "isAutoTopupPlan": "N",
    "serviceType": "POSTPAID"
}
```

```
{
    "resultCode": "-1",
    "resultMsg": "Missing input parameter"
}
{
    "resultCode": "-2",
    "resultMsg": "No such plan name (or code)"
}
```



#### 11.Dealer Code

#### **Purpose**

Get list of dealer code

#### **Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /dealerCode

Type: REST

**Method:** POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOil2NGY2Y2l1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCl6ljFiYzl4OGlzYzZjMTQxNjFiM2ZiMWUyNGJIMD
	AyN2FkliwiaCl6Im11cm11cjY0In0=

#### **Request Parameters**

Parameter	Data	Description	Possible Value	Remarks
	Туре			
serviceType	String	Service Type	POSTPAID	Required
			PREPAID	
dealerCode	String	Dealer Code		
fuzzySearch	String	Fuzzy search by the input	Y – fuzzy search	
		dealer code	Otherwise, exact	
			match	



```
Get the postpaid dealer code list by fuzzy searching the input dealer code

{

serviceType: "POSTPAID"

dealerCode: "AML900"

fuzzySearch: "Y"

}
```

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Return Result	Refer below table	
resultMsg	String	Return Error Code		
dealerCodeList	JsonArray	Json for dealer code list		
dealerCodeList ->	String	Dealer Code		
dealerCode				
dealerCodeList ->	String	Dealer Name		
dealerName				

#### **Result Code**

Result Code	Severity	Description
0	N/A	SUCCESS
-1	N/A	No dealer code record



#### Success response

```
Get the postpaid dealer code list
 resultCode: "0",
 resultMsg: "SUCCESS",
 "dealerCodeList": [{
      "dealerCode": "1638AUTO",
      "dealerName": "1"
      "dealerCode": "1638FAX",
      "dealerName": "1"
      "dealerCode": "1638PH-IN",
      "dealerName": "CS ACXXXXX"
    }]
}
Get specific dealer code
 resultCode: "0",
 resultMsg: "SUCCESS",
 "dealerCodeList": [{
      "dealerCode": "1638AUTO",
      "dealerName": "1"
  }]
}
Get the postpaid dealer code list by fuzzy searching the input dealer code
 resultCode: "0",
 resultMsg: "SUCCESS",
  "dealerCodeList": [{
      "dealerCode": "AML9001000",
      "dealerName": "AD MAXXXX)"
    },
      "dealerCode": "AML9001000",
      "dealerName": "AD MAXXXX)"
    }],
}
```



# 12.Payment Method

#### **Purpose**

Get the list of payment method details for postpaid and prepaid service in new billing system

**Production Endpoints:** https://tykapi.hksmartone.com/icp/inventory

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

API: /paymentMethod

Type: REST

Method: POST

#### Add Key to HTTP Request Header for TYK API:

Name	Auth_ID
Value	eyJvcmciOil2NGY2Y2I1ZmFiYzRhYWI4MGNIZDE1NTUiLCJpZCI6IJFiYzI4OGIzYzZJMTQxNjFiM2ZiMWUyNGJIMD
	AyN2FkliwiaCl6Im11cm11cjY0In0=

#### **Request Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
serviceType	String	Service Type	POSTPAID	Required
			PREPAID	
paymentMethodId	String	Payment method		if both 2 parameters
		ID		are passed, consider
paymentMethodDesc	String	Payment method		paymentMethodId
		description		only



#### **Sample Request**

#### **Response Parameters**

Parameter	Data Type	Description	Possible Value	Remarks
resultCode	String	Return Result	Refer below table	
resultMsg	String	Return Error Code		
paymentMethodList	JsonArray	Json for payment		
		method list		
paymentMethodList ->	String	Payment method type	CASH	
paymentMethod			CARD	
			BANK	
paymentMethodList ->	String	Payment method ID		
paymentMethodId				
paymentMethodList ->	String	Payment method code		
paymentMethodCode				
paymentMethodList ->	String	Payment method		
paymentMethodDesc		description		

#### **Result Code**

Result Code	Severity	Description
0	N/A	SUCCESS
-1	N/A	No payment details



#### Success response

```
Get the postpaid payment method list
 resultCode: "0",
 resultMsg: "SUCCESS",
 "paymentMethodList": [{
        "paymentMethod": "CASH",
        "paymentMethodId": "1",
        "paymentMethodCode": "PMT",
        "paymentMethodDesc": "PMT :Cash - Cash & cheque"
   },
        "paymentMethod": "CARD",
        "paymentMethodId": "9",
        "paymentMethodCode": "AEDD",
        "paymentMethodDesc": "AEDD : AEDD - AE card direct debit"
        "paymentMethod": "BANK",
        "paymentMethodId": "15",
        "paymentMethodCode": "DD",
        "paymentMethodDesc": "DD : NDD - Bank account direct debit"
   }]
}
Get the postpaid payment method by paymentMethodId
 resultCode: "0",
 resultMsg: "SUCCESS",
 "paymentMethodList": [{
        "paymentMethod": "CASH",
        "paymentMethodId": "1",
        "paymentMethodCode": "PMT",
        "paymentMethodDesc": "PMT :Cash - Cash & cheque"
 }]
Get the postpaid payment method by paymentMethodDesc
 resultCode: "0",
 resultMsg: "SUCCESS",
 "paymentMethodList": [{
        "paymentMethod": "BANK",
        "paymentMethodId": "15",
        "paymentMethodCode": "DD",
        "paymentMethodDesc": "DD: NDD - Bank account direct debit"
   }]
}
```



```
Invalid input parameter combination used in the request

{
         "resultCode": "-1",
          "resultMsg": "No payment method record"
}
```