STRICTLY CONFIDENTIAL

BNI API Management Solution

API Gateway Detail Specification for OGP H2H v2

Change Log

Release	Date	Summary	Update by
1.0	March 30th, 2017	Initial document	BNI Team
1.1	May 8th, 2017	• Update Signature • Message Request for doPayment (paymentMethod=1)	• Rana Rafsanzani • Agus Dwi Basuki
1.2	May 15th, 2017	• Revision for description of paymentmethod	• Rana Rafsanzani • Agus Dwi Basuki
1.3	July 12th, 2017	• Revision customerReferenceNumber format	• Rana Rafsanzani • Agus Dwi Basuki
1.4	July 28th, 2017	• Add RTGS / KLIRING and BANK Code list • Add some characters that need to be avoided	Wildan Anugrah
1.5	August 29th, 2017	• Fixing format • Add Digital Signature • Add Recommended private key and public key file	Ryan Hidayat
1.6	September 25th, 2017	• Add Hold Amount • Add Hold Amount Release	Ryan Hidayat
1.7	November 11th, 2017	Add accountNumber, accountStatus, accountType field for Get In House Inquiry	Wildan Anugrah
1.8	May 28th, 2018	Add description for response code 0169	Ryan Hidayat
1.9	June 05th, 2018	Add code snippet ex: PHP Programming	Ryan Hidayat
1.10	August 20th, 2018	• Add InHouse Inquiry for Virtual Account Number • Update Description for Response Code	Ryan Hidayat
2.0	October 18th, 2018	• Change url path: add (v2) in the middle • Change digital signature with JWT Digital Signature	Ryan Hidayat

Summary

1. BNI API's Overview

This document describes API Services definition for BNI API Management Solution: OGP H2H v2 services.

2. Operation Definition

Following are the operation Definition for the services.

2.1. Get Token

GET Token	
Hostname	To be confirm
Port	To be confirm
HTTP Method	POST
Path	/api/oauth/token

HTTP Headers	Name	Format		Mandatory	Description
	Authorization	Basic **BASE64(username:password)**		Yes	
	Content-Type	application/x-www-form-urlencoded		Yes	

Query string parameters	None				
Format	x-www-form-urlencoded				
Authentication	None				

Request Definition	Field	Data Type	Mandatory	Description	
	grant_type	String	Yes	Value = **client_credentials**	

Request Authorization	Name	Value	Mandatory	Description	
	Type	Basic	Yes		
	Username	To be confirm	Yes	Client id application dev_testingapps	
	password	To be confirm	Yes	Client secret application dev_testingapps	

Request Header	Content-Type:application/x-www-form-urlencoded Authorization:Basic YWI0ZTllODctM2IyYy00ZWQwLTg3YmYtZjgwN2FlOWIxN2UxOmZmOTE1MzQ5LWNiYzYtNGI5ZS1hY2ZkLWM3MjdkZjk2MGRlZA==
Request Body	grant_type=client_credentials
Success response code	HTTP 200

Response (Success)	{
	  "access_token": "x3LyfeWKbeaARhd2PfU4F4OeNi43CrDFdi6XnzScKIuk5VmvFiq0B2",
	  "token_type": "Bearer",
	  "expires_in": 3599,

	"scope": "resource.WRITE resource.READ" }
Error response code	http 401 Unauthorize
Response (error)	

2.2. Get Balance

GET Balance				
Hostname	To be confirm			
Port	To be confirm			
HTTP Method	POST			
Path	/H2H/v2/getbalance			
HTTP Headers	**Name**	**Format**	**Mandatory**	**Description**
	Content-Type	application/json	Yes	
	x-api-key	String	Yes	API Key
Query string parameters	**Name**	**Format**	**Mandatory**	**Description**
	access_token	String	Yes	Token provided from gettoken request
Format	JSON			
Authentication	OAuth 2.0 (client credential)			
Request Definition	**Field**	**Data Type**	**Mandatory**	**Description**
	clientId	String	Yes	BNI 3rd Part Identification
	signature	String	Yes	Key combination : Digital Signature
	accountNo	String	Yes	Nomor rekening 3rd Party yang telah terdaftar di BNI
Exp full url	https://{BNIServer}:{port}/H2H/v2/getbalance?access_token= XUVAtlHXbjJZE69AJQXwjTzuNlYR1otNm2xLxFpcYZQiQp0Sbr5QUc			

Request	{
	        "clientId" : "IDBNI" + BASE64(clientName),
	        "signature" :"[SIGNATURE]",
	        "accountNo" : "115471119"
	 }			

Response Definition	**Name**	**Type**	**Description**	
	responseCode	String	0 : Transaksi gagal 1 : Transaksi berhasil >2 : Transaksi gagal	
	responseMessage	String	Response Description	
	errorMessage	String	Error Description	
	responseTimestamp	DateTime	Timestamp transaction	
	customerName	String	Customer Name	
	accountCurrency	String	Account Currency	

XC BNI
Melayani Negeri, Kebanggaan Bangsa

	accountBalance	Numeric	Account Balance	
Success response code	HTTP 200			

Response (Success)	{
	  "getBalanceResponse": {
	    "clientId": "BNISERVICE",
	    "parameters": {
	      "responseCode": "0001",
	      "responseMessage": "Request has been processed successfully",
	      "responseTimestamp": "2017-02-24T14:12:25.871Z",
	      "customerName": "Bpk JONOMADE MADEMADEMADEMADE IMAMADE",
	      "accountCurrency": "IDR",
	      "accountBalance": 16732765949981
	    }
	  }
	}			

Error response code	See Response Code			
Response (error)				

2.3. Get In House Inquiry

GET In House Inquiry					
Hostname	To be confirm				
Port	To be confirm				
HTTP Method	POST				
Path	/H2H/v2/getinhouseinquiry				
HTTP Headers	**Name**	**Format**	**Mandatory**	**Description**	
	Content-Type	application/json	Yes		
	x-api-key	String	Yes	API Key	
Query string parameters	**Name**	**Format**	**Mandatory**	**Description**	
	access_token	String	Yes	Token provided from gettoken request	
Format	JSON				
Authentication	OAuth 2.0 (client credential)				
Request Definition	**Field**	**Data Type**	**Mandatory**	**Description**	
	clientId	String	Yes	BNI 3rd Part Identification	
	signature	String	Yes	Key combination : Digital Signature	
	accountNo	String	Yes	Nomor rekening 3rd Party yang telah terdaftar di BNI	
Exp full url	https://{BNIServer}:{port}/H2H/v2/getinhouseinquiry?access_token= XUVAtlHXbjJZE69AJQXwjTzuNlYR1otNm2xLxFpcYZQiQp0Sbr5QUc				

Request	```
	{
	        "clientId" : "IDBNI" + BASE64(clientName),
	        "signature" :"[SIGNATURE]",
	        "accountNo" : "115471119"
	}
	``

Request VA Number	```
	{
	        "clientId" : "IDBNI" + BASE64(clientName),
	        "signature" :"[SIGNATURE]",
	        "accountNo" : "8696000000000146"
	}
	``

Response Definition	Name	Type	Description
	responseCode	String	0 : Transaksi gagal 1 : Transaksi berhasil >2 : Transaksi gagal
	responseMessage	String	Response Description
	errorMessage	String	Error Description
	responseTimestamp	DateTime	Timestamp transaction
	customerName	String	Customer Name
	accountCurrency	String	Account Currency (Not available for Virtual Account Number)
	accountNumber	String	Account Number
	accountStatus	String	Account Status. For Virtual Account Number: 1 : Aktif 2 : Non Aktif
	accountType	String	Account Type. For Virtual Account Number: 000 : Credit Max Open Payment 001 : Credit Open Payment 002 : Credit Closed Payment 003 : Credit Partial Payment 004 : Debit Open Payment 005 : Debit Fixed Payment 006 : Debit Partial Payment 007 : Credit And Debit 008 : Credit Min Payment 009 : Credit Min Open Payment

Success response code	HTTP 200

Response (Success)	```
	{"getInHouseInquiryResponse": {
	  "clientId": "BNISERVICE",
	  "parameters": {
	    "responseCode": "0001",
	    "responseMessage": "Request has been processed successfully",
	    "responseTimestamp": "2017-09-07T14:10:23.431Z",
	    "customerName": "Bpk JONOMADE MADEMADEMADEMADE IMAMADE",
	    "accountCurrency": "IDR",
	    "accountNumber": "0115475045",
	``

BNI
Melayani Negeri, Kebanggaan Bangsa

	"accountStatus": "BUKA", "accountType": "DEP" } }}

Response VA Number (Success)	{"getInHouseInquiryResponse": {
	 "clientId": "BNISERVICE",
	 "parameters": {
	   "responseCode": "0001",
	   "responseMessage": "Request has been processed successfully",
	   "responseTimestamp": "2018-08-19T17:02:05.711Z",
	   "customerName": "VA CREDIT DEBET111111",
	   "accountNumber": "8696000000000146",
	   "accountStatus": "1",
	   "accountType": "007"
	   }
	 }}

Error response code	See Response Code
Response (error)	

2.4. Do Payment

DO Payment				
Hostname	To be confirm			
Port	To be confirm			
HTTP Method	POST			
Path	/H2H/v2/dopayment			
HTTP Headers	**Name**	**Format**	**Mandatory**	**Description**
	Content-Type	application/json	Yes	
	x-api-key	String	Yes	API Key
Query string parameters	**Name**	**Format**	**Mandatory**	**Description**
	access_token	String	yes	Token provided from gettoken request
Format	JSON			
Authentication	OAuth 2.0 (client credential)			
Request Definition	**Field**	**Data Type**	**Mandatory**	**Description**
	clientId	String	Yes	BNI 3rd Part Identification
	signature	String	Yes	Key combination : Digital Signature
	customerReferenceNumber	String	Yes	Referensi sebagai key untuk rekonsiliasi. Maksimum 20 chars. Format yyyyMMddHHmmssSSS**XXX**.

				XXX: client defined or random number
	paymentMethod	String	Yes	'0' : In-house (antar rekening BNI) '1' : RTGS transfer '2' : Kliring transfer
	debitAccountNo	String	Yes	Nomor rekening 3rd Party yang telah terdaftar di BNI
	creditAccountNo	String	Yes	Nomor rekening tujuan (BNI / Non BNI)
	valueDate	String	Yes	Format yyyyMMddHHmmss
	valueCurrency	String	Yes	Ex : 'IDR'
	valueAmount	Numeric	Yes	Nominal transaksi
	Remark	String	No	Max 50 digits
	beneficiaryEmailAddress	String	No	Email penerima
	destinationBankCode	String	No	Kode bank tujuan (wajib diisi jika paymentmethod selain 0)
	beneficiaryName	String	No	Nama penerima (wajib diisi jika paymentmethod selain 0) Max 50 digits
	beneficiaryAddress1	String	No	Alamat penerima (wajib diisi jika paymentmethod selain 0) Max 50 digits
	beneficiaryAddress2	String	No	Max 50 digits
	chargingModelId	String	No	OUR : fee will be paid by sender (default) BEN : fee will be paid by beneficary SHA : fee divided
Exp full url	https://{BNIServer}:{port}/H2H/v2/dopayment?access_token= XUVAtlHXbjJZE69AJQXwjTzuNlYR1otNm2xLxFpcYZQiQp0Sbr5QUc			

Request	{
	    "clientId" : "IDBNI" + BASE64(clientName),
	    "signature" : "[SIGNATURE]",
	    "customerReferenceNumber" : "20170227000000000020",
	    "paymentMethod" : "0",
	    "debitAccountNo" : "113183203",
	    "creditAccountNo" : "115471119",
	    "valueDate" : "20170227000000000",
	    "valueCurrency" : "IDR",
	    "valueAmount" : "100500",
	    "remark" : "?",
	  "beneficiaryEmailAddress":"",			

	"beneficiaryName":"Mr.X", "beneficiaryAddress1":"Jakarta", "beneficiaryAddress2":"", "destinationBankCode":"CENAIDJAXXX", "chargingModelId":"OUR" }		
Response Definition	**Name**	**Type**	**Description**
	responseCode	String	0 : Transaksi gagal 1 : Transaksi berhasil >2 : Transaksi gagal
	responseMessage	String	Response Description
	errorMessage	String	Error Description
	responseTimestamp	DateTime	Timestamp transaction
	debitAccountNo	String	No rekening 3rd Party
	creditAccountNo	String	Nomor rekening tujuan (BNI / Non BNI)
	customerReference	String	Nomor referensi sesuai request yang dikirim
	bankReference	String	Nomor Jurnal bukti pembukuan bank
	valueAmount	Numeric	Nominal transaksi
Success response code	HTTP 200		

**Response
(Success)**
	{
	  "doPaymentResponse" : {
	    "clientId" : "BNISERVICE",
	    "parameters" : {
	      "responseCode" : "0001",
	      "responseMessage" : "Request has been processed successfully",
	      "responseTimestamp" : "2017-02-27T14:46:55.084Z",
	      "debitAccountNo" : 113183203,
	      "creditAccountNo" : 115471119,
	      "valueAmount" : 100500,
	      "valueCurrency" : "IDR",
	      "bankReference" : 953403,
	      "customerReference" : 20170227000000000020
	    }
	  }
	}		

Error response code	See Response Code		
Response (error)			

2.5. Get Payment Status

GET Payment Status	
Hostname	To be confirm
Port	To be confirm
HTTP Method	POST
Path	/H2H/v2/getpaymentstatus

HTTP Headers	Name	Format	Mandatory	Description
	Content-Type	application/json	Yes	
	x-api-key	String	Yes	API Key

Query string parameters	Name	Format	Mandatory	Description
	access_token	String	yes	Token provided from gettoken request

Format	JSON
Authentication	OAuth 2.0 (client credential)

Request Definition	Field	Data Type	Mandatory	Description
	clientId	String	Yes	BNI 3rd Part Identification
	signature	String	Yes	Key combination : Digital Signature
	customerReferenceNumber	String	Yes	Referensi sebagai key untuk rekonsiliasi. Maksimum 20 chars. Format yyyyMMddHHmmssSSS**XXX**. **XXX**: client defined or random number

Exp full url	https://{BNIServer}:{port}/H2H/v2/getpaymentstatus?access_token= XUVAtlHXbjJZE69AJQXwjTzuNlYR1otNm2xLxFpcYZQiQp0Sbr5QUc

| **Request** | ```json
{
        "clientId" : "IDBNI" + BASE64(clientName),
        "signature" : "[SIGNATURE]",
        "customerReferenceNumber" : "20170227000000000020"
}
``` |
|---|---|

Response Definition	Name	Type	Description
	responseCode	String	0 : Transaksi gagal 1 : Transaksi berhasil >2 : Transaksi gagal
	responseMessage	String	Response Description
	errorMessage	String	Error Description
	responseTimestamp	DateTime	Timestamp transaction
	previousResponse	String	Response dari hasil transaksi sebelumnya
	customerReference	String	Nomor referensi sesuai request yang dikirim
	bankReference	String	Nomor Jurnal bukti pembukuan bank

	transactionStatus	String	Y : Transaksi sukses
			N : Transaksi Gagal
	previousResponseCode	String	0 : Transaksi gagal
			1 : Transaksi berhasil
			>2 : Transaksi gagal
	previousResponseMessage	String	Response Description
	previousResponseTimestamp	DateTime	Tanggal dan waktu transaksi di BNI
	debitAccountNo	String	No rekening 3rd Party
	creditAccountNo	String	Nomor rekening tujuan (BNI / Non BNI)
	valueAmount	Numeric	Nominal transaksi
	valueCurrency	String	Mata uang nominal transaksi
Success response code	HTTP 200		
Response (Success)	(see JSON below)		
Error response code	See Response Code		
Response (error)			

Response (Success):

```
{
  "getPaymentStatusResponse" : {
    "clientId" : "BNISERVICE",
    "parameters" : {
      "responseCode" : "0001",
      "responseMessage" : "Request has been processed successfully",
      "responseTimestamp" : "2017-02-27T15:04:00.927Z",
      "previousResponse" : {
        "transactionStatus" : "Y",
        "previousResponseCode" : null,
        "previousResponseMessage" : null,
        "previousResponseTimestamp" : "2017-02-27T07:47:14.640Z",
        "debitAccountNo" : 113183203,
        "creditAccountNo" : 115471119,
        "valueAmount" : 100500,
        "valueCurrency" : "IDR"
      },
      "bankReference" : 953403,
      "customerReference" : 20170227000000000020
    }
  }
}
```

2.6. Get Inter Bank Inquiry

GET Inter Bank Inquiry					
Hostname	To be confirm				
Port	To be confirm				
HTTP Method	POST				
Path	/H2H/v2/getinterbankinquiry				
HTTP Headers	**Name**	**Format**	**Mandatory**	**Description**	
	Content-Type	application/json	Yes		
	x-api-key	String	Yes	API Key	
Query string parameters	**Name**	**Format**	**Mandatory**	**Description**	
	access_token	String	Yes	Token provided from gettoken request	
Format	JSON				
Authentication	OAuth 2.0 (client credential)				
Request Definition	**Field**	**Data Type**	**Mandatory**	**Description**	
	clientId	String	Yes	BNI 3rd Part Identification	
	signature	String	Yes	Key combination : Digital Signature	
	customerReferenceNumber	String	Yes	Referensi sebagai key untuk rekonsiliasi. Maksimum 20 chars. Format yyyyMMddHHmmssSSS**XXX**. **XXX**: client defined or random number	
	accountNum	String	Yes	Nomor rekening 3rd Party yang telah terdaftar di BNI	
	destinationBankCode	String	Yes	Destination Bank Code	
	destinationAccountNum	String	Yes	Destination Account number for another bank	
Exp full url	https://{BNIServer}:{port}/H2H/v2/getinterbankinquiry?access_token= XUVAtlHXbjJZE69AJQXwjTzuNlYR1otNm2xLxFpcYZQiQp0Sbr5QUc				
Request	{ "clientId" : "IDBNI" + BASE64(clientName), "signature" :"[SIGNATURE]", "customerReferenceNumber" : "20170227000000000021", "accountNum" : "113183203", "destinationBankCode" : "014", "destinationAccountNum" : "3333333333" }				
Response Definition	**Name**	**Type**	**Description**		
	responseCode	String	0 : Transaksi gagal 1 : Transaksi berhasil >2 : Transaksi gagal		

STRICTLY CONFIDENTIAL

responseMessage	String	Response Description	
responseTimestamp	DateTime	Response Timestamp	
destinationAccountNum	String	Destination account number	
destinationAccountName	String	Destination Owner's account name	
destinationBankName	String	Destination Bank Name	
retrievalReffNum	String	Refference number for Interbank Transaction	

Success response code	HTTP 200
Response (Success)	``` { "getInterbankInquiryResponse": { "clientId": "BNISERVICE", "parameters": { "responseCode": "0001", "responseMessage": "Request has been processed successfully", "responseTimestamp": "2017-05-08T14:57:51.963Z", "destinationAccountNum": "113183203", "destinationAccountName": "DUMMY NAME", "destinationBankName": "BCA", "retrievalReffNum": 100000000097 } } } ```
Error response code	See Response Code
Response (error)	

2.7. Get Inter Bank Payment

GET Inter Bank Payment *Notes: Hit GET Inter Bank Inquiry first to get [getInterbankInquiryResponse] before hit this service				
Hostname	To be confirm			
Port	To be confirm			
HTTP Method	POST			
Path	/H2H/v2/getinterbankpayment			
HTTP Headers	**Name**	**Format**	**Mandatory**	**Description**
	Content-Type	application/json	Yes	
	x-api-key	String	Yes	API Key
Query string parameters	**Name**	**Format**	**Mandatory**	**Description**
	access_token	String	Yes	Token provided from gettoken request
Format	JSON			

Authentication	OAuth 2.0 (client credential)			
Request Definition	**Field**	**Data Type**	**Mandatory**	**Description**
	clientId	String	Yes	BNI 3rd Part Identification
	signature	String	Yes	Key combination : Digital Signature
	customerReferenceNumber	String	Yes	Referensi sebagai key untuk rekonsiliasi. Maksimum 20 chars. Format yyyyMMddHHmmssSSS**XXX**. **XXX**: client defined or random number
	amount	Numeric	Yes	Nominal transaksi
	destinationAccountNum	String	Yes	[getInterbankInquiryResponse] Destination Account number for another bank
	destinationAccountName	String	Yes	[getInterbankInquiryResponse] Destination Account name for another bank
	destinationBankCode	String	Yes	Destination Bank Code
	destinationBankName	String	Yes	[getInterbankInquiryResponse] Destination Bank Name
	accountNum	String	Yes	Nomor rekening 3rd Party yang telah terdaftar di BNI
	retrievalReffNum	String	Yes	[getInterbankInquiryResponse] Refference number for Interbank Transaction

Exp full url	https://{BNIServer}:{port}/H2H/v2/getinterbankpayment?access_token= XUVAtlHXbjJZE69AJQXwjTzuNlYR1otNm2xLxFpcYZQiQp0Sbr5QUc

Request	

```
{
        "clientId" : "IDBNI" + BASE64(clientName),
        "signature" : "[SIGNATURE]",
        "customerReferenceNumber" : "20170227000000000021",
        "amount" : "10000",
        "destinationAccountNum" : "3333333333",
        "destinationAccountName" : "BENEFICIARY NAME 1      UNTIL HERE1BENEFICIARY NAME
2(OPT) UNTIL HERE2",
        "destinationBankCode" : "014",
        "destinationBankName" : "BCA",
        "accountNum" : "115471119",
        "retrievalReffNum" : "100000000024"
}
```

Response Definition	**Name**	**Type**	**Description**	
	responseCode	String	0 : Transaksi gagal 1 : Transaksi berhasil	

			>2 : Transaksi gagal	
	responseMessage	String	Response Description	
	responseTimestamp	DateTime	Response Timestamp	
	destinationAccountNum	String	Destination account number	
	destinationAccountName	String	Destination Owner's account name	
	destinationBankName	String	Destination Bank Name	
	accountName	String	Owner's account name	

Success response code	HTTP 200

Response (Success)	```
	{
	  "getInterbankPaymentResponse" : {
	    "clientId" : "BNISERVICE",
	    "parameters" : {
	      "responseCode" : "0001",
	      "responseMessage" : "Request has been processed successfully",
	      "responseTimestamp" : "2017-03-01T11:45:02.062Z",
	      "destinationAccountNum" : 3333333333,
	      "destinationAccountName" : "BENEFICIARY NAME 1 UNTIL HERE1BENEFICIARY NAME 2(OPT)
	UNTIL HERE2",
	      "customerReffNum" : 100000000011,
	      "accountName" : "BPK JONOMADE MADEMADEMADEMADE"
	    }
	  }
	}
	``

Error response code	See Response Code

Response (error)	```
	{
	  "getInterbankPaymentResponse" : {
	    "clientId" : "BNISERVICE",
	    "parameters" : {
	      "responseCode" : "0007",
	      "responseMessage" : "Duplicate Reference Number",
	      "errorMessage" : "Duplicate Refnum",
	      "responseTimestamp" : "2017-02-28T14:46:03.533Z"
	    }
	  }
	}
	``

2.8. Hold Amount

HOLD Amount	
Hostname	To be confirm
Port	To be confirm

HTTP Method	POST			
Path	/H2H/v2/holdamount			
HTTP Headers	**Name**	**Format**	**Mandatory**	**Description**
	Content-Type	application/json	Yes	
	x-api-key	String	Yes	API Key
Query string parameters	**Name**	**Format**	**Mandatory**	**Description**
	access_token	String	Yes	Token provided from gettoken request
Format	JSON			
Authentication	OAuth 2.0 (client credential)			

Request Definition	**Field**	**Data Type**	**Mandatory**	**Description**
	clientId	String	Yes	BNI 3rd Part Identification
	signature	String	Yes	Key combination : Digital Signature
	customerReferenceNumber	String	Yes	Referensi sebagai key untuk rekonsiliasi. Maksimum 20 chars. Format yyyyMMddHHmmssSSS**XXX**. **XXX**: client defined or random number
	amount	Numeric	Yes	Nominal transaksi
	accountNo	String		Nomor rekening 3rd Party yang telah terdaftar di BNI
	detail	String	No	Remark for hold amount transaction

Exp full url	https://{BNIServer}:{port}/H2H/v2/holdamount?access_token= XUVAtlHXbjJZE69AJQXwjTzuNlYR1otNm2xLxFpcYZQiQp0Sbr5QUc

Request	

	{
	    "clientId": "IDBNI" + BASE64(clientName),
	    "signature": "M4+FEsYOQluwIldqTqRti6oK3EhtGcTtrQZVtNrNZHxGz71kzXBoRCVgGuT8rq/jSE7c/sUXnSl/lqOPSvec hI6HX1RpatHudd5mmLe2kcX38a2jg3L46dDuKC92cVrRmuPdvpOIH24J/gsNjrHHsgN3eEq8tmwKxQhg TkoZ4+Y=",
	    "customerReferenceNumber": "20170504153218296",
	    "amount": 12007,
	    "accountNo": "0115476151",
	    "detail": "testHold"
	}

Response Definition	**Name**	**Type**	**Description**
	responseCode	String	0 : Transaksi gagal 1 : Transaksi berhasil >2 : Transaksi gagal
	responseMessage	String	Response Description

	errorMessage	String	Error Description
	responseTimestamp	DateTime	Response Timestamp
	accountOwner	String	Account name
	customerReference	String	The purpose of bank reconciliation. Max 20 char
	bankReference	String	Journal number. Please keep this value to relase the hold transaction
Success response code	HTTP 200		
Response (Success)	``` { "holdAmountResponse": { "clientId": "BNISERVICE", "parameters": { "responseCode": "0001", "responseMessage": "Request has been processed successfully", "responseTimestamp": "2017-09-25T14:45:47.746Z", "accountOwner": "Nama : ROBERT NARO", "bankReference": 513621, "customerReference": 20170504153218296 } } } ```		
Error response code	See Response Code		
Response (error)	``` { "holdAmountReleaseResponse": { "clientId": "BNISERVICE ", "parameters": { "responseCode": "0210", "responseMessage": "NILAI BLOKIR BUKAN NOL", "errorMessage": "NILAI BLOKIR BUKAN NOL", "responseTimestamp": "2017-09-25T15:24:18.736Z", "customerReference": 20170504153218290 } } } ```		

2.9. Hold Amount Release

HOLD Amount Release	
Hostname	To be confirm
Port	To be confirm
HTTP Method	POST
Path	/H2H/v2/holdamountrelease

HTTP Headers	Name	Format	Mandatory	Description
	Content-Type	application/json	Yes	
	x-api-key	String	Yes	API Key

Query string parameters	Name	Format	Mandatory	Description
	access_token	String	Yes	Token provided from gettoken request

Format	JSON
Authentication	OAuth 2.0 (client credential)

Request Definition	Field	Data Type	Mandatory	Description
	clientId	String	Yes	BNI 3rd Part Identification
	signature	String	Yes	Key combination : Digital Signature
	customerReferenceNumber	String	Yes	Referensi sebagai key untuk rekonsiliasi. Maksimum 20 chars. Format yyyyMMddHHmmssSSS**XXX**. **XXX**: client defined or random number
	amount	Numeric	Yes	Nominal transaksi
	accountNo	String	Yes	Nomor rekening 3rd Party yang telah terdaftar di BNI
	bankReference	String	Yes	Journal number. You can get this value from ResponseHoldAmount
	holdTransactionDate	String	Yes	The date when you do the hold transaction. When you do the hold transaction, you need to save the date to release the hold transaction. Format: ddMMYYYY ex: 31052010 Due to development purpose there's a condition that in development and testing environment, the value for this tag must be static. Development: **31052010** Test: **30092014**

Exp full url	https://{BNIServer}:{port}/H2H/v2/holdamountrelease?access_token= XUVAtlHXbjJZE69AJQXwjTzuNlYR1otNm2xLxFpcYZQiQp0Sbr5QUc

Request	

```
{
    "clientId": "IDBNI" + BASE64(clientName),
    "signature":
"M4+FEsYOQluwIldqTqRti6oK3EhtGcTtrQZVtNrNZHxGz71kzXBoRCVgGuT8rq/jSE7c/sUXnSl/lqOPSvec
hI6HX1RpatHudd5mmLe2kcX38a2jg3L46dDuKC92cVrRmuPdvpOIH24J/gsNjrHHsgN3eEq8tmwKxQhg
```

TkoZ4+Y=",

    "customerReferenceNumber": "20170504153218298",

    "amount": 12007,

    "accountNo": "0115476151",

    "bankReference": "513668",

    "holdTransactionDate": "31052010"

}

	Name	Type	Description
Response Definition	**responseCode**	String	0 : Transaksi gagal
			1 : Transaksi berhasil
			>2 : Transaksi gagal
	responseMessage	String	Response Description
	errorMessage	String	Error Description
	responseTimestamp	DateTime	Response Timestamp
	accountOwner	String	Account name
	customerReference	String	The purpose of bank reconciliation. Max 20 char
	bankReference	String	Journal number
Success response code	HTTP 200		

Response (Success)	{
	
	   "holdAmountReleaseResponse": {
	
	      "clientId": "BNISERVICE",
	
	      "parameters": {
	
	         "responseCode": "0001",
	
	         "responseMessage": "Request has been processed successfully",
	
	         "responseTimestamp": "2017-09-25T15:19:36.697Z",
	
	         "accountOwner": "Nama : ROBERT NARO",
	
	         "bankReference": 513685,
	
	         "customerReference": 20170504153218296
	
	      }
	
	    }
	
	}		

Error response code	See Response Code		

Response (error)	{
	
	   "holdAmountReleaseResponse": {
	
	      "clientId": "BNISERVICE",
	
	      "parameters": {
	
	         "responseCode": "0173",
	
	         "responseMessage": "BLOKIR atau HOLD YG DIMINTA TDK ADA",
	
	         "errorMessage": "BLOKIR atau HOLD YG DIMINTA TDK ADA",
	
	         "responseTimestamp": "2017-09-25T15:21:48.723Z",
	
	         "customerReference": 20170504153218300
	
	      }		

```
        }
    }
```

3. Response Code

CODE	RESPONSE	CAUSE	ACTION	HTTPCODE	DESC
0000	Unknown output	Unhandle Error/Generic Fatal Error. Contact PIC BNI	Manual Process	500	Internal Server error
0001	Request has been processed successfully			200	Success
0002	Request has been rejected by Icons	Failed posting to Corebanking eq. Insufficient Balance, etc		400	Bad Request
0007	Request has been processed unsuccessfully	Transaction failed due to validation. eq. invalid account, currency, signature, etc		400	Bad Request
0009	Process has timed out	Internal timeout/technical error. Contact PIC BNI	Manual Process	500	Internal Server error
0011	Previous identical request has been processed successfully	The previous transaction has been successful		400	Bad Request
0013	Previous identical request is still being processed	Request sent but no response from core banking. Contact PIC BNI	Manual Process	500	Internal Server error
0017	Previous identical request has been processed unsuccessfully	Validation failed in the internal payment system. (Repeat error code 0007)		400	Bad Request
0169	Request has been processed unsuccessfully	Account number is not found		400	Bad Request
0173	Blokir atau Hold yg diminta tdk ada	Invalid request		400	Bad Request
0210	Nominal Blokir tidak boleh nol	Amount value zero		400	Bad Request
0417	Nominal tidak boleh nol	Amount value zero		400	Bad Request

4. Bank Code

KLIRING / RTGS CODE	BANK NAME	BANK CODE
BRINIDJAXXX	PT.BANK RAKYAT INDONESIA (Persero) Tbk.	002

BMRIIDJA	PT. BANK MANDIRI (PERSERO)	008
CENAIDJAXXX	PT. BANK CENTRAL ASIA Tbk.	014

Noted:

- Kliring and RTGS transaction use **KLIRING / RTGS CODE**. Meanwhile, interbank transaction use **BANK CODE**
- **KLIRING** is used for transaction amount less than IDR 100 million
- **RTGS** is used for transaction amount more than equal to IDR 100 million
- To see the complete list of banks, please check on file "**List of Banks for H2H OGP.xlsx**"

5. Avoid Characters

SYMBOL	DESCRIPTION
!	exclamation point
"	double quotes
#	number sign
$	dollar sign
%	percent sign
&	ampersand
'	single quote
*	asterisk
+	plus sign
,	comma
-	minus sign - hyphen
.	period
/	slash
:	colon
;	semicolon
<	less than sign
=	equal sign
>	greater than sign
?	question mark
[	opening bracket
\	backslash
]	closing bracket
^	caret - circumflex
{	opening brace
|	vertical bar
}	closing brace
~	equivalency sign - tilde

6.   JWT Digital Signature

JWT (JSON Web Tokens) consist of three parts separated by dots(.), which are header, payload, signature.

To create a JWT Digital Signature, perform the following steps:

a.   Construct a JWT header in the following format:

```
{
    "alg": "HS256",
    "typ": "JWT"
}
```

b.   Base64url encode the JWT header, which results in the following:

eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9

c.   Create a JWT Payload in the following format (JSON):

Example for OGP - Get Balance

```
{
    "clientId": "IDBNIU0FOREJPWA==",
    "accountNo": "0115476117"
}
```

Note : JWT Payload depends with the REST Body Payload

d.   Base64url encode the JWT payload, which results in the following:

eyJjbGllbnRJZCI6IklEQk5JVTBGT1JFSlBXQT09IiwiYWNjb3VudE5vIjoiMDExNTQ3NjExNyJ9

e.   Encoded header, the encoded payload, a secret, and sign that with HMAC SHA256 algorithm, for example:

HMACSHA256(base64urlEncode(header)+".”.”+base64urlEncode(payload), API Secret Key)

Putting All together base64url string separated by dots, which results in the following

eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJjbGllbnRJZCI6IklEQk5JVTBGT1JFSlBXQT09IiwiYWNjb3VkE5vIjoiMDExNTQ3NjExNyJ9.QNzzfLIliGlKsRicWX86zcIGBq7pgf66mOSuHrNidJw

Code snippet ex:

PHP Programming

```php
// Create token header as a JSON string
$header = JSON_encode(['typ' => 'JWT', 'alg' => 'HS256']);


// Create token payload as a JSON string
$payload = JSON_encode(['user_id' => 123]);


// Encode Header to Base64Url String
$base64UrlHeader = str_replace(['+', '/', '='], ['-', '_', ''], base64_encode($header));


// Encode Payload to Base64Url String
$base64UrlPayload = str_replace(['+', '/', '='], ['-', '_', ''],
base64_encode($payload));


// Create Signature Hash
$signature = hash_hmac('sha256', $base64UrlHeader . "." . $base64UrlPayload, 'abC123!',
true);


// Encode Signature to Base64Url String
```

```php
$base64UrlSignature = str_replace(['+', '/', '='], ['-', '_', ''],
base64_encode($signature));

// Create JWT
$jwt = $base64UrlHeader . "." . $base64UrlPayload . "." . $base64UrlSignature;


 echo $jwt;
```