

NTT Communications

Cloudⁿ

Partner API Manual

Ver.1.2

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Ver.1.1	09/29/2014	<ul style="list-style-type: none">• Modified description of signature creation method.• Modified API categorization.
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1-1) Overview of Cloudⁿ Partner API

Cloudⁿ provides the resale partners with the Web API “Cloudⁿ Partner API”, with which the resale partners can control Cloudⁿ by HTTP requests.

Using this API, the partners can freely create and terminate contracts under them and obtain a billing record from their own system without Web UI operation.

The Partner API of Cloudⁿ is a query-format Web API that executes API requests by issuing HTTP (S) requests to a specific URL by a predefined method.

1-2) List of Cloudⁿ Partner API

This manual describes the following APIs.

	Command	Overview
Contract management	Creating Cloud ⁿ contract	Creating a Cloud ⁿ contract.
	Terminating Cloud ⁿ contract	Terminating a Cloud ⁿ contract.
	Suspending Cloud ⁿ contract	Suspending a Cloud ⁿ contract.
	Resuming Cloud ⁿ contract	Resuming a Cloud ⁿ contract.
	Obtaining contract list	Obtaining the billing record by specifying contract and month.
Account management	Cloud ⁿ login ID uniqueness check	Checking whether the specified login ID has already been taken.
	Creating account	Adding an account to the target contract.
	Deleting account	Deleting the target account.
	Changing account information	Changing the attribute information (password, etc.) of the target account.
	Obtaining account information	Obtaining the account attribute information (mail address, etc.).
	Updating API key/secret key	Updating the API key of the target contract.
	Obtaining API key/secret key	Obtaining the API key held by the account.
	Adding IP address restriction	Setting a portal-accessible IP to the target account.
	Deleting IP address restriction	Deleting the portal-accessible IP set to the target account.
	Starting use of products	Starting use of the Cloud ⁿ products. (Ex.: Starting use of East Japan Compute FLAT.)
	Ending use of products	Ending (terminating) use of the Cloud ⁿ products.
	Obtaining user product list	Listing the products held by the account
	SSO	Single signing on to the Cloud ⁿ Portal.
	Obtaining account list	Obtaining a list of accounts within the target contract.
Ticket management	Obtaining ticket list	Obtaining a list of contracts.
Billing management	Obtaining billing record	Obtaining a list of tickets related to the contract.

1-2) List of Cloudⁿ Partner API

This manual describes the following APIs.

	Command	Overview
Account management	Creating product	Starting use of Cloud ⁿ products. (Ex.: Starting use of East Japan Compute FLAT.)
	Terminating product	Terminating a Cloud ⁿ product.
SSO	SSO	Single signing on to the Cloud ⁿ Portal.

2-1) Creating a Cloudⁿ Partner API request

The API servers (end points) provided by this service are as follows (other than SSO).

Other than SSO: <https://portal.cloudn-service.com/comgi/comgiapi/api>

SSO: <https://portal.cloudn-service.com/comgi/CloudnSso>

The following table shows the parameters used for the API requests described below.

Sample parameter table:

Common Request Parameter		
Parameter name	Descriptions	Mandatory
Action	Indicates the type of this request.	Yes
ContractId	Specifies the contract (anXXXXXXXX).	Yes
SystemAccessKeyld	AP key to identify the partner (Issued by NTT Communications.)	Yes
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'. (The UTC standard. "Z" at the end means UTC.) This time stamp is used to protect against replay attacks. Time stamps older than 60 seconds are not API-authenticated. (Sample time stamp: 2012-12-28T18:22:56.238Z)	Yes
Signature	Signature created from the request character string (The procedure of signature creation is described later.)	Yes

The following table shows the responses.

Common Response (Asynchronous Methods)				
Response (Body)	Type	XML		
	XML	Element name	Descriptions	Child node
		CreateContractResponse		ContractId MailAddress
		ContractId	Contract ID to be terminated	
		MailAddress	Mail address tied to the contract ID to be terminated (used for notice of completion of termination, etc.)	

The following pages describe the actual procedures to create a signature and a request.

2-1) Creating a Cloudⁿ Partner API request

The requirements to execute a request are as follows.

Method and URL	Request method	POST. GET used only by SSO.
	End point	https://portal.cloudn-service.com/comgi/comgiapi/api
	Request path	/comgi/comgiapi/api
	Query character string	Although depending on the request type, the query character string is required to contain the following attributes/values at least. <ul style="list-style-type: none">• Action = <API action name>• SystemAccessKeyId = <API key ID>• TimeStamp = <Time stamp> (*1)• Signature = <Authentication message hashed with the secret key> All the parameters are case-sensitive.
Header	HTTP version	Always specify "HTTP/1.1".
	Host	The host header element must be included. Specify "portal.cloudn-service.com".
	Content-Type	If applicable, specify "application/x-www-form-urlencoded". (Not mandatory.)
Body	Body and other elements	Elements other than the above, such as the body element, are not used (Ignored even if included).

2-1) Creating a Cloudⁿ Partner API request

Creating each parameter

Time stamp

The time stamp included in the query character string is in the time stamp strftime(3) format before URL-encoding, i.e., “%Y-%m-%dT%H:%M:%S.%3NZ”.

Example:

```
2014-09-02T00:41:04.000Z
```

This is a parameter necessary to protect against relay attacks. The valid period of a time stamp is 60 seconds. The time stamp is verified by the server on the receiving side. If the time stamp time differs by 60 seconds or more from the server internal time, then an error screen is displayed in case of SSO, or a 400 Bad Request Error is returned in case of other APIs.

2-1) Creating a Cloudⁿ Partner API request

Creating each parameter

Signature

The signature given to the request is executed by HMAC SHA256.

As a precondition, the Cloudⁿ Partner API must be called via the internet, and thus there is a threat of illicit falsification. To prevent this threat and guarantee that there is no illicit falsification, it is confirmed by calculating the signature that the parameters and the parameter values have not been falsified on the route. The method of creation of a signature is as follows.

Taking the DisableContract API as an example, the following section describes how to create a request.

The DisableContract API sets the following parameters (hypothetical values).

Parameter	Value
End point URL	https://portal.cloudn-service.com/comgi/comgiapi/api
Action	DisableContract
ContractId	an100055559
SystemAccessKeyId	SAMPLEKEYSTRING0123
TimeStamp	2014-09-02T00:41:04.000Z
SecretKey	ThisIsADummySecretKeyString0123456789012



The API key (SystemAccessKeyId) and the secret key (SecretKey) used for API requests are issued by NTT Communications to each partner. For confirmation, create a ticket from “Inquiry” of the Cloudⁿ Portal.

2-1) Creating a Cloudⁿ Partner API request

1. Creating a query character string

All the parameter names and values are URL-encoded.

The parameter and its value are connected by an equal character “=” (ASCII code 61). Then the pairs of parameters and values connected by equal characters are placed in the alphabetical order and connected by “&” (ASCII code 38). It is required to escape (URL-encode) any value or parameter that contains a URI reserved character defined by RFC3986.

On the contrary, other characters are not escaped. The values are allowed to have spaces.

In this case, the spaces need to be encoded to %20.

Remember that commas (,) and periods (.) are not escaped.

The following is a query character string created according to the above procedure.

```
Action=DisableContract&ContractId=an100055559&SystemAccessKeyId=
SAMPLEKEYSTRING0123&TimeStamp=2014-09-02T00%3A41%3A04.000Z
```

(The backslash shows a linefeed and is not contained in the actual query character string.)

2. Creating a signature-target character string

The HTTP method, the host name and the path are created to a linefeed (¥n) query-target character string. The method is POST in principle but GET is used only in case of the SSO AIP.

The following is a sample DeleteContract signature-target character string.

The following is the signature-target character string in case of the sample.

```
POST¥n
portal.cloudn-service.com¥n
/comgi/comgiapi/api¥n
Action=DisableContract&ContractId=an100055559&SystemAccessKeyId=
SAMPLEKEYSTRING0123&TimeStamp=2014-09-02T00%3A41%3A04.000Z
```

2-1) Creating a Cloudⁿ Partner API request

3. Creating a signature

With SecretKey used as the key, HMAC-SHA256 conversion is executed to create a signature. The created signature is base64-converted and URI-encoded to make a character string.

Apply the following key to the signature-target character string on the previous page.

```
ThisIsADummySecretKeyString0123456789012
```

```
aqoiuxEQ1Xy6oHQ3lw3hxR%2BBwhLa3jf6433gA%2FYet%2FU%3D
```

As a result, the above character string is created as a signature.

Add the signature character string to the end of the query character string.

```
Action=DisableContract&ContractId=an100055559&SystemAccessKeyId=
SAMPLEKEYSTRING0123&TimeStamp=2014-09-
02T00%3A41%3A04.000Z&Signature=aqoiuxEQ1Xy6oHQ3lw3hxR%2BBwh
La3jf6433gA%2FYet%2FU%3D
```

4. Creating an HTTP request.

Using the query string with the signature added to, configure an HTTP request. After the request path (/comgi/comgiapi/api), connect the query character string as a parameter.

The HTTP method is POST.

To specify Content-Type, specify application/x-www-form-urlencoded.

```
POST
/comgi/comgiapi/api?Action=DisableContract&ContractId=an100055559&
SystemAccessKeyId=SAMPLEKEYSTRING0123&TimeStamp=2014-09-
02T00%3A41%3A04.000Z HTTP/1.1
Content-Type:application/x-www-form-urlencoded
```

(The part from “POST” to “HTTP/1.1” is one line.)

Send the HTTP request created as above to the end point (portal.cloudn-service.com) to complete the API request.

2-2) About response from Cloudⁿ Partner API

The response consists of an HTTP status code and the XML that is included in the response body.

(Note, however, that the SSO API does not return the XML but take other actions such as authentication.)

Success response:

The XML defined for each API is returned.

When successful, the HTTP status code is 2xx.

Failure response:

In case of an error, the following contents, which are common to individual APIs, are returned.

1. In case of abnormal parameters/signatures, the HTTP status code is 4xx.
In case of a server error, response of 5xx is returned.
2. The element of ErrorResponse contains the Code and Message elements. Both the Code and Message is an XML that has a character string as the value.

	HTTP status code	Assumed situation
2XX	Success	Successful API
4XX	Client Error	The specified end point does not exist. API parameter error, signature error, privilege error, etc.
5XX	Server Error	Server failure, service suspended, etc.

Sample error response:

HTTP status code

```
400 Bad Request
```

Response body

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>  
<ErrorResponse>  
  <Code>com.nttcom.comgi.api.ComgiApi</Code>  
  <Message>Invalid TimeStamp</Message>  
</ErrorResponse>
```

* Code and Message within the response body are not guaranteed. Be sure to use the HTTP status code for error judgment.

3-1) Creating a Cloudⁿ contract

CreateContract

Overview

Creating a contract tied to the specified channel on Cloudⁿ. At the same time, an account having the contract management right is created and issued.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request.	<input type="radio"/>
ChannelId	Specifies the contract channel on Cloud ⁿ to which application is made	<input type="radio"/>
LoginId	Specifies the login ID of the administrator account. The login ID is a character string consisting of 6 to 50 characters listed below. <ul style="list-style-type: none"> •0-9 •a-z •A-Z •@, +, -, .(period) and _ (under) 	<input type="radio"/>
Password	Specifies the password of the administrator account. The password is a character string consisting of 8 to 50 characters listed below. <ul style="list-style-type: none"> •0-9 •a-z •A-Z •Following symbols !#\$%&()*+,-./:;<=>@[¥]^_`{ }~ 	<input type="radio"/>
Email	Specifies the email address of the administrator account.	<input type="radio"/>
ReferredId	If there is any external contract ID (ID issued by the contract system to a contract), this specifies it.	
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

3-1) Creating a Cloudⁿ contract

CreateContract

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		CreateContractResponse		ContractId, CloudnAccountId, StartTime
		ContractId	Created/registered Cloud ⁿ contract ID	
		CloudnAccountId	Created/registered Cloud ⁿ account ID	
		StartTime	Cloud ⁿ account ID START_TIME is included and returned (UTC)	

3-1) Creating a Cloudⁿ contract

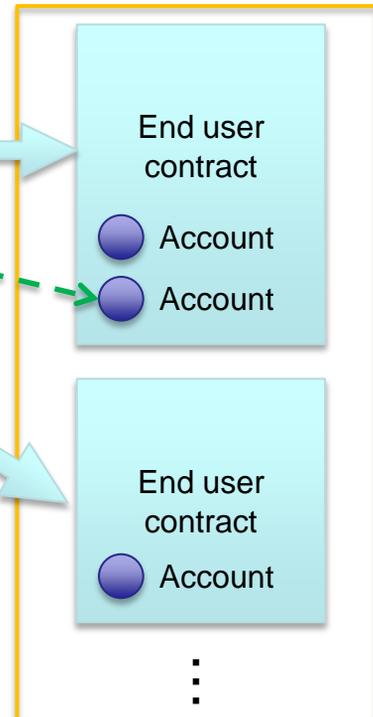
The end user contracts under the partner's management are created, tied to the contract type called the channels.

- Channel where the partner's wholesale contract exists, and
 - Channel where the partner creates end user contracts
- are provided by NTT Communications.

Partner's wholesale channel 1



Partner's retail channel 1



Partner's retail channel 2



Creation of contracts, etc.

Creation of accounts, etc.



When executing Cloudⁿ contract creation API, etc., you need to specify the channel ID. The following pages describe the procedure to specify the channel ID.

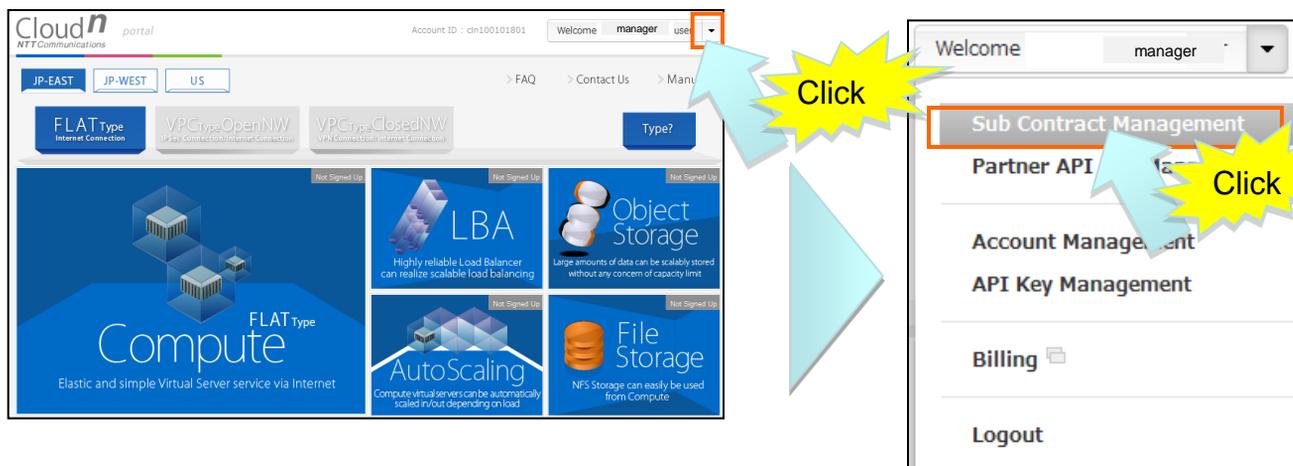
3-1) Creating a Cloudⁿ contract

The procedure to confirm the channel ID is as follows.

Log in to the Partner Portal.

1

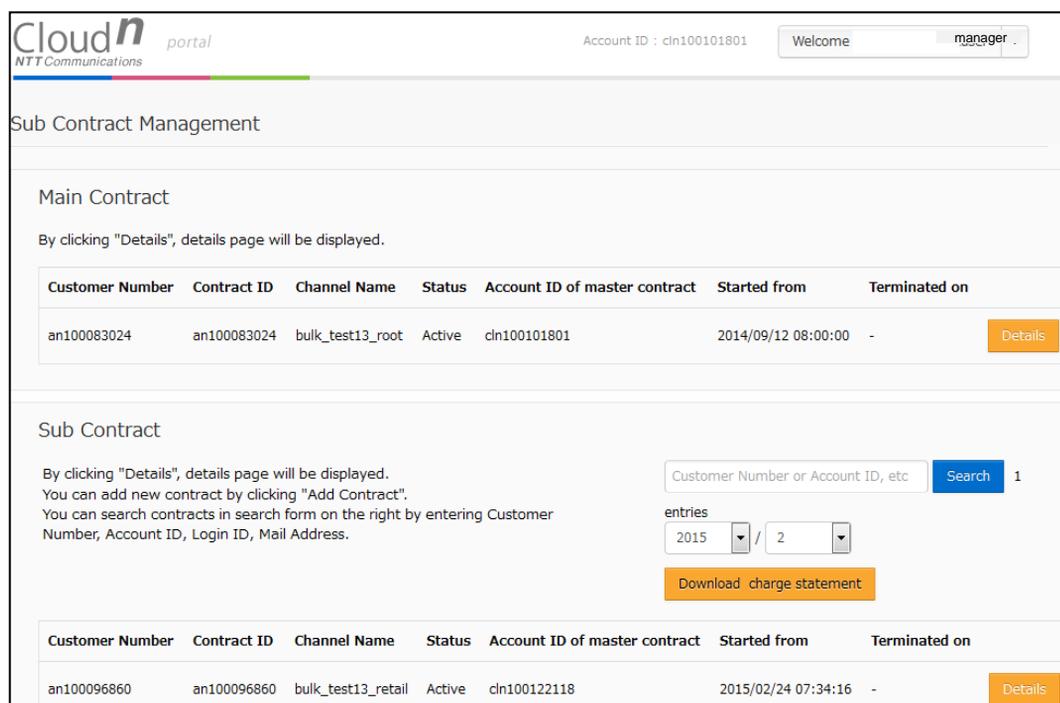
After logging in to the Cloudⁿ Portal, select “Sub Contract Management” from the pulldown menu on the upper right side.



The screenshot shows the Cloudⁿ portal home page. At the top right, a user menu is open, showing the user name 'manager' and a dropdown arrow. The dropdown menu is highlighted with a red box, and a yellow starburst with the word 'Click' points to it. The dropdown menu contains the following items: 'Sub Contract Management' (highlighted with a red box and a yellow starburst with 'Click'), 'Partner API Management', 'Account Management', 'API Key Management', 'Billing', and 'Logout'. A large blue arrow points from the dropdown menu towards the right side of the page.

2

The Partner Portal page appears.



The screenshot shows the 'Sub Contract Management' page in the Cloudⁿ portal. The page title is 'Sub Contract Management'. Below the title, there is a section for 'Main Contract' with a note: 'By clicking "Details", details page will be displayed.' Below this is a table with the following data:

Customer Number	Contract ID	Channel Name	Status	Account ID of master contract	Started from	Terminated on	
an100083024	an100083024	bulk_test13_root	Active	cln100101801	2014/09/12 08:00:00	-	Details

Below the table is a section for 'Sub Contract' with a note: 'By clicking "Details", details page will be displayed. You can add new contract by clicking "Add Contract". You can search contracts in search form on the right by entering Customer Number, Account ID, Login ID, Mail Address.' To the right of this section is a search form with the following fields:

- Search input: 'Customer Number or Account ID, etc' with a 'Search' button and a counter '1'.
- Entries: 'entries' with a dropdown menu showing '2015' and a page number '2'.
- Download button: 'Download charge statement'.

Below the search form is another table with the following data:

Customer Number	Contract ID	Channel Name	Status	Account ID of master contract	Started from	Terminated on	
an100096860	an100096860	bulk_test13_retail	Active	cln100122118	2015/02/24 07:34:16	-	Details

3-1) Creating a Cloudⁿ contract

Open the "Add Contract" screen.

3

From the Partner Portal, click "Add Contract".

Sub Contract

By clicking "Details", details page will be displayed.
You can add new contract by clicking "Add Contract".
You can search contracts in search form on the right by entering Customer Number, Account ID, Login ID, Mail Address.

Customer Number or Account ID, etc Search 1

entries
2015 / 2

Download charge statement

Customer Number	Contract ID	Channel Name	Status	Account ID of master contract	Started from	Terminated on	
an100096860	an100096860	bulk_test13_retail	Active	cln100122118	2015/02/24 07:34:16	-	Details

<< < 1 > >>

/ 1 pages Go

Click

Add Contract



4

The channel ID can be confirmed from the "Channel" pulldown in the input screen.

Add Contract

Please fill in necessary information to add contract , then click "next"

Channel
Channel Name (Channel ID)

Following is information related to contract representative account

Login ID

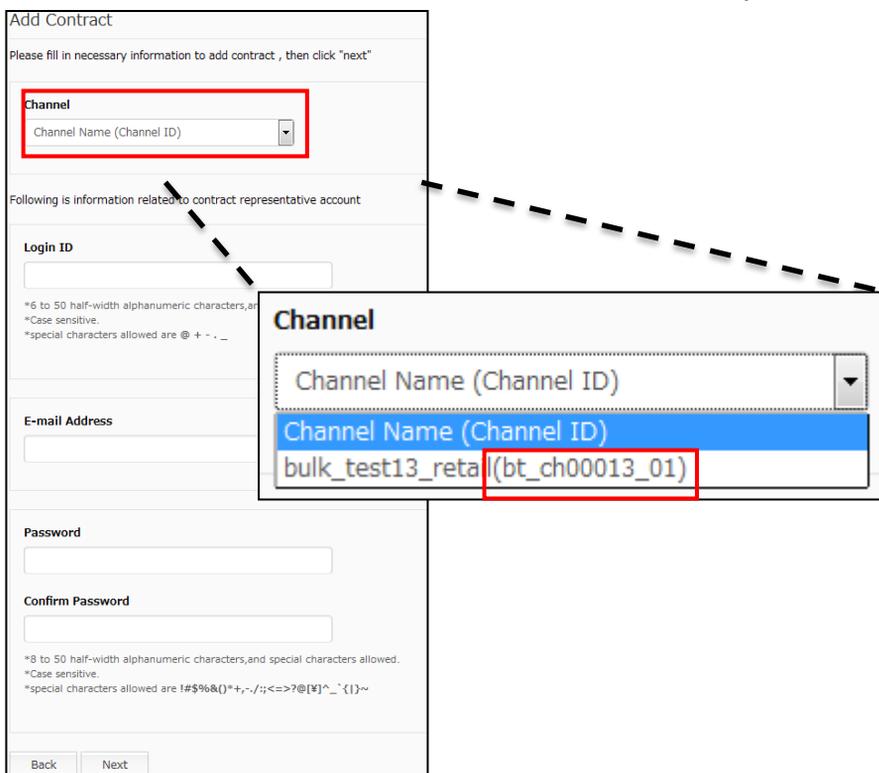
E-mail Address

Password

Confirm Password

Back Next

Channel
Channel Name (Channel ID)
bulk_test13_retail(bt_ch00013_01)



3-2) Deleting a Cloudⁿ contract

DeleteContract

Overview

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "DeleteContract".	<input type="radio"/>
ContractId	Specifies the target contract ID. This contract ID is one issued by comgi at the time of contract creation.	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>



Once a contract is deleted, all the accounts held by that contract and the products held by each account are deleted.

3-2) Deleting a Cloudⁿ contract

DeleteContract

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		DeleteContractResponse		ContractId, MailAddress
		ContractId	Contract ID to be deleted	
		MailAddress	Mail address tied to the contract ID to be deleted (used for notice of completion of deletion, etc.)	

3-3) Disabling a Cloudⁿ contract

DisableContract

Overview	Suspending a contract.
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Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "DisableContract".	<input type="radio"/>
ContractId	Specifies the target contract ID. This contract ID is one issued by comgi at the time of contract creation.	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>



Once a contract is disabled, the accounts within it and the products held by those accounts are all suspended, making Cloudⁿ login impossible. However, the disabled contract and the disabled accounts are charged (Expected to be used to subscribers with unpaid bills.). The disabled state can be returned to an effective state **with** the enabling function.

3-3) Disabling a Cloudⁿ contract

DisableContract

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		DisableContractResponse		ContractId
		ContractId	ID of the disabled contract	

3-4) Enabling a Cloudⁿ contract

EnableContract

Overview

Restarting a contract that has been disabled by DisableContract.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "EnableContract".	<input type="radio"/>
ContractId	Specifies the target contract ID. This contract ID is one issued by comgi at the time of contract creation.	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

3-4) Enabling a Cloudⁿ contract

EnableContract

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		EnableContractResponse		ContractId
		ContractId	ID of the enabled contract	

3-5) Obtaining a contract list

GetContractsOfChannel

Overview

Obtaining a list of the contracts under the specified channel.

Request Parameters

Parameter name	Descriptions	Mandatory
Action		<input type="radio"/>
ChannelId	Specifies the channel that specifies contracts. For confirmation of the channel ID, see the pages describing the contract adding API.	<input type="radio"/>
ContractId	Specified to refine the contract IDs.	
ReferredId	Specified to refine the external IDs.	
LoginId	Specifies the login ID.	
Email	Specifies the email address.	
Page	Specifies the page number to be obtained. This is defaulted to 1.	
Pagesize	Specifies the number of contracts listed on one page. This is defaulted to 50.	
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

3-5) Obtaining a contract list

GetContractsOfChannel

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		GetContractsOfChannelResponse		Contracts
		Contracts		Contract
		Contract	Shows one contract.	ChannelId, ChannelName, ContractId, CloudnAccountId, StartTime, EndTime, Status
		ChannelId	ID of the channel to which this contract belongs	
		ChannelName	Name of the channel to which this contract belongs	
		ContractId	ID of this contract	
		CloudnAccountId	ID of the representative account of this contract	
		StartTime	Date and time of start of this contract (UTC)	
		EndTime	Date and time of termination of this contract (UTC). If not terminated, "9999-12-31 23:59:59" is shown.	
		Status	Status of this contract. 1: Available; 2: Disabled; 3: Deleted	

4-1) Cloudⁿ login ID uniqueness check

CheckUniquenessOfLoginId

Overview

Confirms whether the specified login ID has already been used on Cloudⁿ. This is required in such cases as a login ID uniqueness check before creating a contract on the application screen.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "CheckUniquenessOfLoginId".	<input type="radio"/>
LoginId	Login ID the uniqueness of which is to be confirmed	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>



The login IDs must be unique on Cloudⁿ as a whole. Therefore, if a login ID is identical to one of any customer of Cloudⁿ direct sales or other partners, you cannot obtain that ID.

4-1) Cloudⁿ login ID uniqueness check

CheckUniquenessOfLoginId

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		CheckUniquenessOfLoginId Response		LoginId, Result
		LoginId	Checked login ID	
		Result	"true" is returned if not unique and "false" if unique.	

4-2) Creating an account

CreateCloudnAccount

Overview

Creating a second or subsequent Cloudⁿ account under the specified contract.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "CreateAccount".	<input type="radio"/>
ContractId	Specifies the ID of the contract under which the account is to be created.	<input type="radio"/>
LoginId	Specifies the login ID of this account. The login ID is a character string consisting of 6 to 50 characters listed below. •0-9 •a-z •A-Z •@, +, -, .(period) and _ (under)	<input type="radio"/>
Password	Specifies the password of this account. The password is a character string consisting of 8 to 50 characters listed below. •0-9 •a-z •A-Z •Following symbols !#\$%&()*+,-./:;<=>@[¥]^_`{ }~	<input type="radio"/>
Email	Specifies the email address of this account.	<input type="radio"/>
PasswordUpdateNeeded	Specifies whether password update is requested when this account executes login for the first time (True/False).	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

4-2) Creating an account

CreateCloudnAccount

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		CreateCloudnAccount Response		CloudnAccountId
		CloudnAccountId	ID of the created Cloud ⁿ account	

4-3) Deleting an account

DeleteCloudnAccount

Overview

Deleting the specified Cloudⁿ account.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "DeleteCloudnAccount".	<input type="radio"/>
CloudnAccountId	Specifies the ID of the Cloud ⁿ account to be deleted.	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>



Once an account is deleted, all the products held by that account are deleted.

4-3) Deleting an account

DeleteCloudnAccount

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		DeleteCloudnAccountResponse		CloudnAccountId, Result
		CloudnAccountId	ID of the deleted Cloud ⁿ account	
		Result	Returns the deletion result. "SUCCEEDED" if successful.	

4-4) Updating the account information

UpdateAccountInformation

Overview

Specifying a Cloudⁿ account ID to update the attribute of that account.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "UpdateAccountInformation".	<input type="radio"/>
AccountId	Specifies the target Cloud ⁿ account.	<input type="radio"/>
LoginId	Specifies a new login ID.	
MailAddress	Specifies a new mail address.	
Password	Specifies a new password.	
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

4-4) Updating the account information

UpdateAccountInformation

Response				
Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		UpdateAccountInformationResponse		AccountId, LoginId, MailAddress
		AccountId	Shows the target account ID.	
		LoginId	The new login ID.	
		MailAddress	The new mail address.	

* The password is intentionally excluded from the response.

4-5) Obtaining the account information

GetInfoOfAccount

Overview

Obtaining the information on the specified account including the mail address.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "GetInfoOfAccount".	<input type="radio"/>
AccountId	Specify a Cloud ⁿ account ID, a contract ID, or a ReferredId (external contract ID).	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

4-5) Obtaining the account information

GetInfoOfAccount

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		GetInfoOfAccountResponse		CloudnAccountId, LoginId, Email, ContractId, CompanyCode, ChannelName, ReferredSysId, Status, CreatedDate, DeletedDate
		CloudnAccountId	Target Cloud ⁿ account ID	
		LoginId	Login ID	
		Email	Current mail address	
		ContractId	The contract ID to which this account belongs	
		ChannelName	Name of channel to which the contract belongs.	
		ReferredSysId	Shows which external contract system it belongs to.	
		ReferredId	External contract ID	
		Status	Returns the account status. 1 = Existent and active. 2 = Disabled. 3 = Deleted. 4 = Active and in the new user status (need to change password).	
		CreatedDate	Date of creation. Returns "YYYY-MM-DD HH:mm:ss.s" by UTC.	
		DeletedDate	Date of deletion. Returns "9999-12-31 23:59:59.0" if not deleted.	

4-6) Updating the API key and the secret key

UpdateAPIKey

Overview	Updating the API key and the secret key of the specified account.
----------	---

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "UpdateAPIKey".	<input type="radio"/>
AccountId	Specifies the target Cloud ⁿ account.	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

4-6) Updating the API key and the secret key

UpdateAPIKey

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		UpdateAPIKeyResponse		AccountId, Key, Result, FailedProductsList
		AccountId	Shows the target account.	
		Result	Result of update (Success/Failure)	
		Key	The newly created key	KeyType, APIKey, SecretKey
		KeyType	The key type of this key ("apikey" only)	
		APIKey	The new APIKey character string	
		SecretKey	The new SecretKey character string	
		FailedProductsList	Any product that failed in key update is shown.	ProductId
		ProductId	Product ID of the product that failed at time of key update. * Refer to the supplementary explanation for the product IDs.	

4-7) Obtaining the API key and the secret key

GetAPIKeysOfAccount

Overview

Obtaining the information on the API key of a Cloudⁿ account

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "GetAPIKeysOfAccount".	<input type="radio"/>
AccountId	Specifies the target Cloud ⁿ account.	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

4-7) Obtaining the API key and the secret key

GetAPIKeysOfAccount

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		GetAPIKeysOfAccountResponse		CloudnAccountId, Keys
		CloudnAccountId	The specified Cloud ⁿ account ID	
		Keys	Includes multiple keys.	Key
		Key	Indicates one key.	ProductIdList
		ProductIdList		ProductId
		ProductId	Lists the products to which this key is linked. Refer to the supplementary explanation for productid.	
		KeyType	Shows the key type of this key. Three types of values, apikey, cskeyjpeast, and x509 are returned but at present, only apikey is meaningful.	
		APIKey	The API key character string	
		SecretKey	The secret key character string	

4-8) Adding an authorized IP address

AddAuthorizedIpaddress

Overview

Adding an IP address that is authorized to access the Cloudⁿ Portal to the target Cloudⁿ account.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "AddAuthorizedIpaddress".	<input type="radio"/>
AccountId	Specifies the target Cloud ⁿ account.	<input type="radio"/>
TargetIpaddress	The IP address and subnet mask to be added. Specify in the form of X.X.X.X/Y.	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

4-8) Adding an authorized IP address

AddAuthorizedIpaddress

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		AddAuthorizedIpaddress Response		IpaddressList
		IpaddressList	Contains one or more Ipaddress elements. If there is no IP filter, this element becomes blank (<IpaddressList/>).	Ipaddress
		Ipaddress	The IP address permitted after execution of API (form of X.X.X.X/Y).	



If no permitted IP address is set, access from all the IP addresses is permitted. If one or more are set, only access from it/them is permitted.

4-9) Deleting an authorized IP address

DeleteAuthorizedIpaddress

Overview

Deleting the IP address, set in the target Cloudⁿ account, that has been authorized to access the Cloudⁿ Portal.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "DeleteAuthorizedIpaddress".	<input type="radio"/>
AccountId	Specifies the target Cloud ⁿ account.	<input type="radio"/>
TargetIpaddress	The IP address and subnet mask to be deleted. Specify in the form of X.X.X.X/Y.	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

4-9) Deleting an authorized IP address

DeleteAuthorizedIpaddress

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		DeleteAuthorizedIpaddressResponse		IpaddressList
		IpaddressList	Contains one or more Ipaddress elements. If there is no IP filter, this element becomes blank (<IpaddressList/>).	Ipaddress
		Ipaddress	The IP address permitted after execution of API (form of X.X.X.X/Y).	



If no permitted IP address is set, access from all the IP addresses is permitted. If one or more are set, only access from it/them is permitted.

4-10) Starting use of a product

StartProduct

Overview	Starting use of the specified product by the target account.
----------	--

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "StartProduct".	<input type="radio"/>
AccountId	Specifies the target Cloud ⁿ account.	<input type="radio"/>
ProductId	Specifies the product the account is to start using (/cloudn/jpeast/compute, etc.). Refer to the supplementary explanation for the product IDs.	<input type="radio"/>

4-10) Starting use of a product

StartProduct

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		StartProductResponse		CloudnAccountId, ProductId
		CloudnAccountId	The target product account	
		ProductId	ID of the product the account has started using	

4-11) Terminating use of a product

EndProduct

Overview

Terminating use of the specified product by the target account.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "EndProduct".	<input type="radio"/>
AccountId	Specifies the target Cloud ⁿ account.	<input type="radio"/>
ProductId	Specifies the product the account is to stop using (/cloudn/jpeast/compute, etc.). Refer to the supplementary explanation for the product IDs.	<input type="radio"/>

4-11) Terminating use of a product

EndProduct

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		EndProductResponse		CloudnAccountId, ProductId
		CloudnAccountId	The target product account	
		ProductId	ID of the product the account has stopped using	

4-12) Obtaining a user product list

ListProductsOfAccount

Overview

Obtaining a list of the products held by an account

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "ListProductsOfAccount".	<input type="radio"/>
AccountId	Specifies the target Cloud ⁿ account.	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

4-12) Obtaining a user product list

ListProductsOfAccount

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		ListProductsOfAccountResponse	Shows that this is a response of ListProductsOfAccount.	CloudnAccountId, Products
		CloudnAccountId	The ID of the specified Cloud ⁿ account	
		Products	Zero or more product elements are put in line in this element.	Product
		Product	Inside of this element indicates one product account.	ProductId, ProductAccountId, State, CreatedDate, DeletedDate
		ProductId	Product ID of this product, such as /cloudn/compute and /cloudn/paas. Refer to the supplementary explanation for the product IDs.	
		ProductAccountId	ID on the product corresponding to CloudnAccountId.	
		State	Shows the state of the product account. Enabled Disabled Deleted	
		CreatedDate	Shows the date and time of start of use of the product. Shown UTC-based in format of YYYY-MM-DD HH:mm:SS.	
DeletedDate		Shows the date and time of deletion of the product account. Shown UTC-based in format of YYYY-MM-DD HH:mm:SS. If the product is not deleted, this element has no value.		

4-13) SSO (single sign on)

CloudnSso

Overview

Executing SSO from an external system to the Cloudⁿ Portal.

Request Parameters

Parameter name	Descriptions	Mandatory
AccountId	Specifies a Cloud ⁿ account ID, a contract ID or ReferredId (external contract ID).	<input type="radio"/>
SsoAccessKeyId	The SSO access key of the SSO request source. Like SystemAccessKey, this SSO access key is distributed to each partner. (It is separated from the API key as it is visible to the user when used.)	<input type="radio"/>
AccountIdType	Specify the type of the parameter specified by AccountId. Specify either "account_id", "contract_id", or "referred_id". <ul style="list-style-type: none"> • Account_id: Used to specify a Cloudⁿ account ID (Ex.: cln00007120) by AccountId. • Contract_id: Used to specify a Cloudⁿ contract ID (Ex.: an0002712921) by AccountId. If this is specified, the login is executed with the account ID of the contract owner. • Referred_id: If the partner issues a unique identifier to the Cloudⁿ contract ID, the partner can specify it at the time of creation of the contract (Refer to creation of contract). Specify this to execute login by specifying this ID. 	<input type="radio"/>
TargetUrl	Specifies a URL. If this value is specified, the URL to which redirect is executed after authentication by the authentication server becomes the URL set in this parameter. If not specified, the portal top page opens.	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z' (UTC-based. The last letter, Z, meas UTC). Same as other APIs.	<input type="radio"/>
Signature	Signature created from the SSO secret key of the SSO request source (issued at the same time of SSoAccessKey) and the request character string. The method to create the signature is the same as that using the API secret keys in the other APIs.	<input type="radio"/>



Remember that the SSO API does not use SystemAccessKey (AP key) or SecretKey (secret key) but uses SsoAccessKeyId / SsoSecretKeyId that is separately issued.

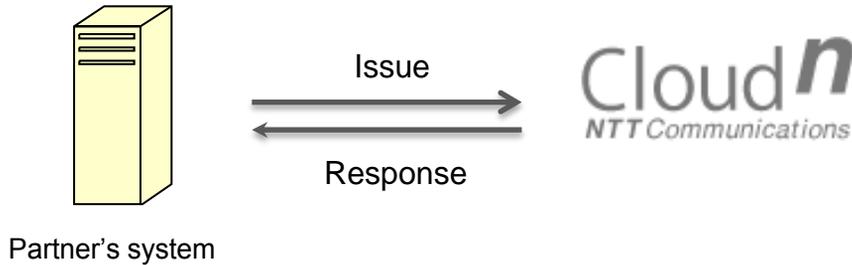


If using TargetUrl specification, a specific screen, function, or the like of the portal directly opens when Cloudⁿ is offered.

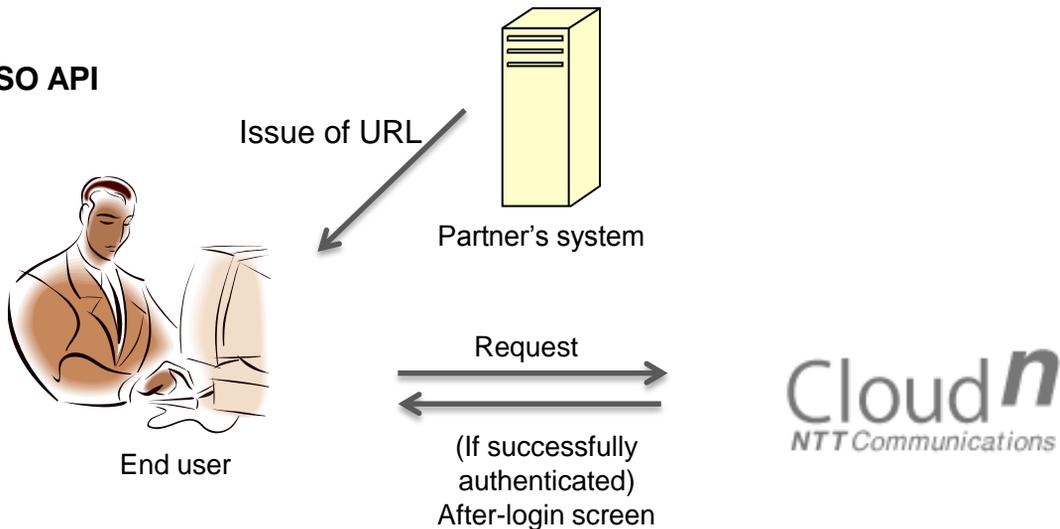
4-13) SSO (single sign on)

The Cloudⁿ SSO is designed to be issued to Cloudⁿ not by the partner's system to Cloudⁿ but by the end user.

General partner API



SSO API



Since the effective period of TimeStamp is 60 seconds, it is recommended to create a request not at the of Partner screen drawing but immediately before the actual execution of SSO.

4-14) Obtaining an account list

GetAccountInformationOfContract

Overview

With a contract specified, obtaining information on the accounts included in that contract.

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Specify "EnableContract".	<input type="radio"/>
ContractId	Specifies the target contract ID. This ID is one issued by comgi at the time of contract creation.	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

4-14) Obtaining an account list

GetAccountInformationOfContract

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		GetAccountInformationOfContractResponse		ContractId, ContractStatus, AccountList
		ContractId	Contract ID specified with an argument.	
		ContractStatus	Value of CONTRACT.STATUS (1: Enable; 2: Disable)	
		AccountList	Typically, one or more account elements are included. (If there is no enabled account as the abnormal system, it becomes blank (<AccountList/>))	Account
		Account	The following account elements are included.	ContractOwner, AccountId, LoginId, MailAddress, LastLoginTime, StartTime, AccountStatus, Keys
		ContractOwner	Shows whether it is the contract owner. (True/False)	
		AccountId	ID of the account (clnXXXXXXXX)	
		LoginId	Login ID of this account	
		MailAddress	Mail address	
		LastLoginTime	Time of last login	
		AccountStatus	Account status (1: Enabled; 2: Disabled; 3: Deleted)	
		Keys		Key
		Key		KeyType, APIKey
		KeyType	Shows the type of this key.	
		APIKey	Shows the API key (public key).	
		SecretKey	Shows the secret key.	

5-1) Obtaining a ticket list

GetTicketInformationOfContract

Overview

Obtaining a list of the ticket issued in this contract

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Give a character string "GetTicketInformationOfContract".	<input type="radio"/>
ContractId	Specifies the target contract ID. This ID is one issued by comgi at the time of contract creation.	<input type="radio"/>
SystemAccessKeyld	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

5-1) Obtaining a ticket list

GetTicketInformationOfContract

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		GetTicketInformationOfContractResponse		ContractId, NumberOfTickets, Tickets
		ContractId	Contract ID specified by the request	
		NumberOfTickets	Number of tickets being issued in this contract. 0 if no ticket exists.	
		Tickets	Includes multiple ticket elements. Becomes a blank element if no ticket exists.	Ticket
		Ticket		Title, Status, Category, TicketId, ReferredId, ContractId, AccountId, StartDate, EndDate, TicketUrl
		Title	Ticket title	
		Status	Status of ticket Opened (Response started) Closed (Response completed) Analysis (Cause being analyzed) On hold (Being held) Dispatched (Restoration being executed) Resolved (Restoration completed)	
		Category	Category of this ticket: Inquiry or Trouble.	
		TicketId	ID of this ticket	
		ReferredId	External contract ID of this contract	
		ContractId	Contract ID of this ticket	
		AccountId	ID of the Cloud ⁿ account that issued this ticket	
		StartDate	Date and time of ticket description	
		EndDate	Date and time of completion of response to the ticket	
		TicketUrl	URL used to directly log in to the ticket	

6-1) Obtaining the billing record

GetBillingRecords

Overview	Obtaining the billing record of the specified contract for the specified period (month).
----------	--

Request Parameters

Parameter name	Descriptions	Mandatory
Action	Specifies the type of this request. Give a character string "GetBillingRecords".	<input type="radio"/>
ContractId	Specifies the contract ID of the target contract (anXXXXXXXXXX).	<input type="radio"/>
OwnerContractId	Of the billing record, specify the contract ID the usage of which is to be obtained (anXXXXXXXXXX). If specifying the same contract ID as the contract, you can obtain the billing record with regard to the contracts billed to the contract itself (including a summary of the lower contracts). If the value of the Contract differs from the value specified by this parameter, you obtain the details of the billing to the contract specified by this parameter out of the billing to the contract specified by the Contract.	<input type="radio"/>
Year	Specifies the year of the target billing period by the Christian Era. Ex.: 2013	<input type="radio"/>
Month	Specifies the month of the target billing period by the Christian Era. Fill the ten's place with 0. Ex.: 08	<input type="radio"/>
ChargeType	Specifies one of the following charge types by ID. In principle, specify "CT100000001" (billing and display).	<input type="radio"/>
SystemAccessKeyId	ID of the common key issued to the partner and shared in advance	<input type="radio"/>
TimeStamp	Specified in ISO8601 format, i.e., yyyy-MM-dd'T'HH:mm:ss.SSS'Z'.	<input type="radio"/>
Signature	Signature created from the request character string and the secret key.	<input type="radio"/>

6-1) Obtaining the billing record

DisableContract

Response

Response (Body)	Type	XML		
	XML	Node name	Descriptions	Child node
		GetBillingRecordsResponse		Status, BillingData
		Status	Shows whether this billing record is fixed or not fixed in the middle of the month. "Fixed" is shown if it is fixed and "estimated" if not.	
		BillingData	The main body of the billing record of the target contract in the specified month. This includes the <cloudn> element and the <item> elements, showing the billing record of each product and each item.	cloudn
		cloudn	Shows that this is a cloud ⁿ billing data.	billing_month, contract, data
		billing_month	Shows the billing month of this data.	
		contract	Shows the contract of this data.	
		data	The following is the detailed billing data.	item
		item	Shows the billing items. It has the item items recursively.	item

6-1) Obtaining the billing record

Example of an actual billing record



The <item> under <data> shows each resource of nested structure of Cloudⁿ. The amount of the item element of the route node, id="contract", is the final amount claimed to the contract.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<GetBillingRecordsResponse>
  <Status>fixed</Status>
  <BillingData>
    <cloudn>
      <billing_month>2013-03</billing_month>
      <contract>an200040821</contract>
      <data>
        <item id="contract" name="Total" description="Customer number:A10007-301982" amount="738.335" currency="jpy">
          <item id="cloudn.account" name="Account" description="Account ID:cln100050821" amount="738.335" currency="jpy">
            <item id="cloudn.account.jpeast.compute" name="Compute" description="Region: JP-EAST Period:2013-03-03 ~ " amount="0" currency="jpy">
              <item id="cloudn.account.jpeast.compute.csaccount" name="User" description="cln100050821 (Compute ID:80e88d07-e58d-323f-bc88-17ea015b8702)" amount="738.335" currency="jpy">
                <item id="cloudn.account.jpeast.compute.csaccount.plan_vq" name="Plan vQ" description="ID:228e2182-138e-380c-a8e8-a5cd1a0d3fd3 NAME:HOGE TemplateID:8fdc322b-2e82-38a3-af22-28b0e3ab0cd7 Monthly upper limit:835 yen" amount="233.501" currency="jpy">
                  <item id="cloudn.account.jpeast.compute.csaccount.plan_vq.running" name="running" usage-value="23.2783" usage-unit="H" amount="38.235" currency="jpy"/>
                  <item id="cloudn.account.jpeast.compute.csaccount.plan_vq.stopped" name="stopped" usage-value="522.8202" usage-unit="H" amount="585.222" currency="jpy"/>
                </item>
                <item id="cloudn.account.jpeast.compute.csaccount.plan_v1" name="Plan v1" description="ID:228e2182-138e-380c-a8e8-a5cd1a0d3fd3 NAME:eru TemplateID:8fdc322b-2e82-38a3-af22-28b0e3ab0cd7 Monthly upper limit:3,780 yen" amount="80.818" currency="jpy">
                  <item id="cloudn.account.jpeast.compute.csaccount.plan_v1.running" name="running" usage-value="11.3833" usage-unit="H" amount="80.818" currency="jpy"/>
                </item>
              </item>
            </item>
          </item>
        </item>
      </data>
    </cloudn>
  </BillingData>
</GetBillingRecordsResponse>
```

6-1) Obtaining the billing record

Continued:

```
<item
id="cloudn.account.jpeast.compute.csaccount.os_centos_2.3_23bit"
name="Official template" description="Cent OS 2.3 23-bit
applicationVMID:228e2182-138e-380c-a8e8-a5cd1a0d3fd3" usage-
value="202.8833" usage-unit="H" amount="0" currency="jpy"/>
  <item id="cloudn.account.jpeast.compute.csaccount.custom_template"
name="My template" description="ID:eb702cdc-cca1-381c-8f2f-eba7fd32dee7
Capacity:3.3788GB, Time:21.2537H" usage-value="208.3251" usage-unit="GB*H"
amount="2.812" currency="jpy"/>
  </item>
</item>
  <item id="cloudn.account.jpeast.object_storage" name="ObjectStorage"
description="Region:JP-EAST Period:2013-03-08 ~ " amount="0"
currency="jpy">
  <item id="cloudn.account.jpeast.object_storage.storage_bytes"
name="Storage usage" usage-value="0.0000" usage-unit="GB" amount="0"
currency="jpy"/>
  </item>
</data>
</cloudn>
</BillingData>
</GetBillingRecordsResponse>
```

Supplementary explanation: Product IDs

Refer to the following list for the product IDs included in specifications and responses of the billing API and other APIs such as obtaining a user product list and starting use of a product.

Target product	Product ID
AutoScaling (FLAT type federation) (Kanto)	/cloudn/jpeast/auto_scale
AutoScaling (VPC type OpenNW federation) (Kanto)	/cloudn/jpeast/auto_scale_vpc
File Storage (Kanto)	/cloudn/jpeast/bsd
Compute (FLAT type) (Kanto)	/cloudn/jpeast/compute
Compute (VPC type ClosedNW) (Kanto)	/cloudn/jpeast/compute_ost
Compute Security (FLAT type federation) (Kanto)	/cloudn/jpeast/compute_security
Compute(VPC type OpenNW) (Kanto)	/cloudn/jpeast/compute_vpc
DNS (Kanto)	/cloudn/jpeast/dns
LBA (FLAT type federation) (Kanto)	/cloudn/jpeast/lba
LBA (VPC type OpenNW federation) (Kanto)	/cloudn/jpeast/lba_vpc
Logging (FLAT type federation) (Kanto)	/cloudn/jpeast/logging
Monitoring (FLAT type federation) (Kanto)	/cloudn/jpeast/monitoring
Monitoring (VPC type OpenNW federation) (Kanto)	/cloudn/jpeast/monitoring_vpc
ObjectStorage (Kanto)	/cloudn/jpeast/object_storage
PaaS (Kanto)	/cloudn/jpeast/paas
Provision (FLAT type federation) (Kanto)	/cloudn/jpeast/provision
RDB (Kanto)	/cloudn/jpeast/rdb
AutoScaling (FLAT type federation) (Kansai)	/cloudn/jpwest/auto_scale
Compute (FLAT type) (Kansai)	/cloudn/jpwest/compute
LBA (FLAT type federation) (Kansai)	/cloudn/jpwest/lba
Monitoring (FLAT type federation) (Kansai)	/cloudn/jpwest/monitoring
AutoScaling (FLAT type federation) (USA East)	/cloudn/useast/auto_scale
Compute(FLAT type) (USA East)	/cloudn/useast/compute
LBA (FLAT type federation)(USA East)	/cloudn/useast/lba
Monitoring (FLAT type federation) (USA East)	/cloudn/useast/monitoring
DNS (Kanto)	/cloudn/jpeast/dns
CDN	/cloudn/universal/cdn
Advanced Support	/cloudn/nttcom/premium_support