



PNCP API User Guide

For Developers

Disclaimer

This API documentation contains information on several versions of the API, including items that have not yet been released.

Documentation for future versions of our products is created to allow developers time to code before the feature is released. Please be certain to check the version number for each call, and adjust accordingly.

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Introduction

The PNCP API allows developers to create their own applications that interface with the PNCP system to perform functions without having to sign in to the PNCP Client Portal.

Scope

This document assumes the following:

- User has intermediate to advanced programming skills.
- User has experience with HTTP/1.1.
- User has experience with ReSTful Web Services.
- User has experience with JSON and/or XML data sterilization formats.

Links and References

Resources sometimes need to refer to other resources. For example, to retrieve a list of all the virtual machines in a node one would need to submit a request to the resource **GET /account/23/node/1/virtualmachine**. Such a Uniform Resource Identifier (URI) refers to account resource **/account/23** and node resource **node/1**. References can also occur within the body of requests or responses. For example, a request for the details of a virtual machine **GET /virtualmachine/542** will result in a reply that has a body containing, among many other things, a reference to the OS template resource used by that virtual machine **/ostemplate/3**.

Versions

The PNCP API uses a MIME type versioning scheme. The versioning scheme uses HTTP content negotiation where the Accept or Content-Type headers contain a MIME type that identifies the version. The currently supported versions and their respective MIME types are:

Version	MIME Type
1.0	Application/vnd.pncp.v.1.0+json
2.0	Application/vnd.pncp.v.2.0+json
3.0	Application/vnd.pncp.v.3.0+json
4.0	Application/vnd.pncp.v.4.0+json
5.0	Application/vnd.pncp.v.5.0+json

Resource List

The following are resources used by the API:

- **Allocation Limits.** Resellers may allocate a maximum amount of resources that any given Reseller or End Client may use on each Node. Accounts may not modify their own Allocation Limits but may modify the Allocation Limit of any Account that it owns.
- **Billing.** The Billing resource is used to produce reports on rated usage for Accounts.

- **Firewalls.** A Firewall is automatically created when the first Virtual Machine (VM) is created and each Account may have one Firewall per Node.
- **Images.** Images are copies of Virtual Machines that may include software and customizations made by an account. Images allow accounts to quickly clone VMs in a ready-to-go fashion as opposed to setting up VMs and then installing all customizations one at a time.
- **Load Balancers.** Load Balancers are used to manage traffic to VMs. Accounts are able to manage any number of Load Balancer pools in any of the nodes it has access to.
- **Network Storage.** Network Storage volumes can be created in NFS or iSCSI formats, and the API can be used to list, create, delete, and view details of network storage devices. These devices can be mounted from VMs as well as from your own physical servers or computers outside of our network.
- **Nodes.** Any Account may have access to several PNCP Nodes and each node can have different properties (even different geographical locations). Current nodes are:

Node ID	Node Name
1	Phoenix Enterprise
2	Amsterdam
3	Ashburn (VA)

- **Operating System Templates.** Each VM requires an Operating System installation. Accounts can select from available templates for each VM.
- **Accounts.** Accounts are entities that own and manage Virtual Machines, Load Balancers, Firewalls, and Public IPs in PNCP. Resellers may own accounts that are not their own (other resellers and/or End Clients) and are allowed to act on the behalf of accounts that they own.
- **Pricing Profiles.** Pricing Profiles are used to assign pricing to the services Resellers and End Clients use. Resellers can create any number of pricing profiles and assign them to any Account that they own.
- **Public IPs.** Accounts can assign Public IPs to VMs or Load Balancer pools. They can also reserve a limited number of Public IPs that are not presently assigned for use in future planning.
- **Tasks.** Many API requests are not completed instantly. These requests can create task resources that the API uses to poll for status of asynchronous calls.
- **User Accounts.** An Account can create and manage User Accounts for its own access control.
- **Virtual Machines.** Accounts can create, modify, or delete Virtual Machines (VMs) in any of the nodes they have access to. Resellers may also perform the same functions on any Account that they own.

Vagrant Plugin

Vagrant is free and open-source software for creating and configuring virtual development environments. The Vagrant plugin adds a provider to Vagrant, allowing Vagrant to control and provision machines through this API.

More information can be obtained through the [Vagrant](#) website.

API Components

APIs used by developers as an interface between a Client system and the PNCP System to allow you to make changes to your cloud product without using the Client Portal.

Types of Calls

Asynchronous Calls

An Asynchronous call is a call that permits other processing to continue before the transmission has finished. When a request is asynchronous, a task resource is returned immediately and is used to track the status and inform of any errors and/or successful completion of the task.

Synchronous Calls

A Synchronous call is a call that must be completed before a response is returned and another action can be initiated.

Authentication

The system uses Authentication to confirm the identity of the party sending a request. The API employs a custom authentication scheme and requires that each HTTP Request is individually authenticated. The authentication scheme uses an Application Key to identify the entity and a HASH-based Message Authentication Code (HMAC), generated using a Shared Secret, to verify the identity of the requestor.

Request URL Components

The Request URL will look like this:

`https://providerurl.com/api/virtualmachine/55/power?powerState=off`

- The first section, **`https://providerurl.com/api`**, is the web address where the API is located.
- The second section, **`/virtualmachine/55/power`**, is the Resource Path, in this instance a VM with the ID number 55.
- The last section, **`?powerState=off`**, is the Query String.

Send Process

The following steps must be completed when sending an HTTP request to the API:

1. **Build the String-to-sign.** Create the string-to-sign for the desired operation by concatenating the HTTP verb, the Resource URL, and the Application Key.

Example

```
String-to-sign = PUT /virtualmachine/55?powerState=off 12424d8fa15afb4
```

2. **Use SHA-256 to generate the Request Signature.** Hash the String-to-sign using your Shared Secret as the HMAC Key. (Query parameters should be sorted in alphabetical order and the Request Signature should be encoded to Base 64.)

Example

```
Signature = Base64 (SHA-256(String-to-Sign,sharedsecret))
```

3. **Encode Credentials.** Construct a string ApplicationKey + ":" + RequestSignature and encode it to Base 64.

Example

```
Encoded Credentials = Base64  
(12424d8fa15afb4:EM7a8FN4N4gJDUsVemAKcNt+e1QDmFJK92E=)
```

4. **Add an HTTP Authorization Header.** Add an Authorization Header with "PNCP " + encodedString as the value.

Example

```
Authorization=PNCP zWM8XSTNHzzRFTVz64oBpYHVfeAgvZN/jBw=
```

5. **Send the request.**

Response

Upon receipt of the request the API will:

1. **Generate the Request Signature.** The API generates a Request Signature by hashing the **HTTPVerb + ResourcePath + ApplicationKey** using the Shared Secret as the HMAC key, storing the query parameters in the Query String in alphabetical order.
2. **Decode the Authorization Header.** The Authorization Header is decoded using Base 64 and is compared to the Request Signature. When successfully matched the request is serviced; when unsuccessful an **HTTP 401 Unauthorized** code is returned.

Request Signature

A Request Signature is used to verify the identity of the Application Key and is generated as a HMAC of the URL Resource Path (Including alphabetically sorted query parameters) using the Shared Secret.

- **Request Signature.** Generated using SHA-256 to HASH the String-to-Sign using the Shared Secret as the HMAC Key.
- **String-to-Sign.** HTTP Verb + " " + Resource URL (include Query String in alphabetical order) + " " + Application Key.
- **Request Signature.** SHA-256(String-to-Sign, SharedSecret).

Application Key

The Application Key is used to identify the Account making the request and is generated in the Client Portal. To generate an Application Key:

1. **Sign in** to the PNCP.
2. Select the Account you wish to generate an Application Key for from the **Viewing** area at the top of the screen.
3. Click to select **Manage**.
4. Click the **Account Profile** link in the My Account section.
5. Click the **Edit** button.
6. Locate the External API Security section. Click **Generate New Key** next to the *Application Key* item.
7. Click **Update** to save your changes.

Use the generated key for the Application Key in your authentication call.

Shared Secret

A **Shared Secret** is a private key that is known only to your account and ours. This shared secret is never transmitted and is used to generate Request Signatures.

To set the Shared Secret:

1. Sign in to **PNCP**.
2. Select the Account you wish to generate an Application Key for from the **Viewing** area at the top of the screen.
3. Click to select **Account Management**.
4. Select **Account Profile**.
5. Click the **Edit** button on the top right side of the screen.
6. Enter your word/phrase in the **Shared Secret** field.
7. Click **Update** to save your changes.

Authentication Errors

A failure in the Authentication process will give an **HTTP 401 Unauthorized** message. There are three possible reasons for this error:

- **Invalid Application Key.** Check your Application Key in the Client Portal and/or generate a new Application Key.

- **Invalid Request Signature.** Double check your Shared Secret and ensure your query is sorted alphabetically.
- **Not Allowed.** You could be using the wrong API URL (check with your provider for the proper URL for API requests).

Responses will include an X-Application-Error-Description header for a more precise error description. An Authentication Challenge Header with the Authentication Algorithm (such as WWW-Authenticate: PNCP) used will also be included.

API Responses

This section discusses the various rules and definitions for responses to requests sent by the API to your own application. Examples of actual responses follow each individual call type in the API Calls section later in this document.

Errors

When a request is unsuccessful:

- An HTTP error code is always returned
- The response body is always empty
- One of the following headers is present:
 - **X-Application-Error-Description.** (String) Description of the error
 - **X-Application-Error-Reference.** (Integer) Identifier of the error

Returned Error Codes

HTTP Error Code	Description	X-Application-Error-Description Present?	X-Application-Error-Reference Present?
400	Bad Request	Yes	Possible
403	Forbidden	No	No
404	Not Found	No	No
405	Method Not Supported	No	No
500	Internal Server Error	Yes	Possible

400 Bad Request

This error can occur if one or many of the parameters are not specified or are invalid. This error code is always sent back with a description of the validation error specified in the **X-Application-Error-Description** header and, depending on the nature of the error, a corresponding **X-Application-Error-Reference** may also be found in the header.

403 Forbidden

You are attempting to perform an operation on a resource that your user rights do not allow you to perform.

404 Not Found

The resource you are attempting to act on cannot be found.

405 Method Not Supported

The HTTP Method used (GET, POST, PUT, DELETE) is not valid for the URL specified in the request. You may be using the wrong HTTP Method or a wrong Query URL.

500 Internal Server Error

The operation did not successfully complete. The **X-Application-Error-Description** header contains additional information about the failure reason and an **X-Application-Error-Reference** may be included in the response as well.

Successful Request

Type	Response
Synchronous	200 OK
Asynchronous	202 Accepted

API Calls

API Calls are used to send requests to the PNCP system. This section contains sample Calls, sample Responses, and information about each call available to API users.

Account APIs

API Calls in this section are used to perform actions on Accounts, including List Account Tree, Get Account Details, Create and Modify Accounts, Get and Modify the Primary Contact, as well as Get and Modify the Technical Contact.

Get Owned Account Tree

HTTP Verb	GET
URI Template	/account
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers only can invoke this, and can only be invoked to obtain their whole account tree.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 4tBCFs116jO5xt5MGwyOpl2u+n/YdV/XzWxAfB+xWII=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 25 Jan 2012 16:06:50 GMT
```

```
{
  "accountResource": {
    "resourceURL": "/account/88"
  },
  "noOfChildren": 3,
  "children": [
    {
      "accountResource": {
        "resourceURL": "/account/96"
      },
      "children": [],
      "noOfChildren": 0
    },
    {
      "accountResource": {
        "resourceURL": "/account/97"
      },
      "children": [],
      "noOfChildren": 0
    },
    {
      "accountResource": {
        "resourceURL": "/account/98"
      },
      "children": [],
      "noOfChildren": 0
    }
  ]
}
```

Get Account Details

HTTP Verb	GET
URI Template	/account/{accID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/96 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 5/GJyHh6STKjWQzC0TO5mxrYcUWujUMavvOLwJyyax4=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Tue, 31 Jan 2012 15:54:24 GMT

{
  "name": "MyResellerName",
  "email": "mail@domain.com",
  "description": "This is a description of my reseller.",
  "adminUrl": "http://www.myreseller.com/admin",
  "clientAssignedId": null,
  "reportBugEmail": "reportbug@domain.com ",
  "accountStatus": "GOOD_STANDING",
  "accountResource": {
    "resourceURL": "/account/10327"
  },
  "signUpDate": "2013/09/26 01:18:41",
  "parentAccountResource": {
    "resourceURL": "/account/1"
  },
  "primaryContactResource": {
    "resourceURL": "/account/10327/primaryContact"
  },
  "technicalContactResource": {
    "resourceURL": "/account/10327/technicalContact"
  },
  "billingMethod": "EXTERNAL",
  "assignedPricingProfileResource": {
    "resourceURL": "/pricingprofile/1281"
  },
  "permissions": {
    "reseller": true,
    "virtual": true,
    "bareMetal": false
  }
}

```

Notes

- The field **signUpDate** is a date of format **yyyy/MM/dd HH:mm:ss**.
- The **adminUrl** and **reportBugEmail** fields are only considered for accounts with the reseller permission. If set when reseller permission is false, they will be ignored.
- The **assignedPricingProfileResource** field will only be populated if the account accessed is a child down the tree of the account performing the call.
- The field **billingMethod** can be set to either **UBERSMITH** or **EXTERNAL**.
- The field **accountStatus** can be set to **GOOD_STANDING**, **USERS_SUSPENDED**, **ON_HOLD**, **CANCEL_REQUESTED**, **CANCELLED**, **TERMINATED** or **END_CLIENT**.

Create Account

HTTP Verb	POST
URI Template	/account/{accID}
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers only.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/account/88 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP S7CrFAVGB0d+0IDNHnUITf0aEsIyrb6sn/d1Y30V+FM=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 614
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

```
{
  "name": "MyNewResellerName",
  "description": "This is a description of my new reseller.",
  "email": "mail@mynewreseller.com",
  "adminUrl": "http://www.admin.mynewreseller.com/login",
  "reportBugEmail": "bugs@mynewreseller.com",
  "clientAssignedId": "123",
  "ubersmithId": "123",
  "userName": "myusername@mydomain.com",
  "password": "myPassword",
  "passPhrase": "myPassPhrase",
  "primaryContactName": "John",
  "primaryContactSurname": "Smith",
  "primaryContactEmail": "johns@mynewreseller.com",
  "primaryContactPhoneNumber": "458956891258",
  "sendWelcomeEmail": false,
  "billingMethod": "EXTERNAL",
  "assignedPricingProfileResource": {
    "resourceURL": "/pricingprofile/112"
  },
  "permissions": {
    "reseller": true,
    "virtual": true,
    "bareMetal": false
  }
}
```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 25 Jan 2012 16:56:27 GMT

{
  "resourceURL": "/account/99"
}

```

Field Info

Field Name	Required for Resellers	Required for End-Clients
adminUrl	✓	
clientAssignedId		
ubersmithId		
description		
email	✓	✓
name	✓	✓
permissions	✓	✓
passPhrase	✓	✓
password	✓	✓
primaryContactEmail	✓	✓
primaryContactName	✓	✓
primaryContactPhoneNumber	✓	✓
primaryContactSurname	✓	
reportBugEmail	✓	
sendWelcomeEmail		
assignedPricingProfileResource		
billingMethod		
userName	✓	✓

Notes

- The **adminUrl** and **reportBugEmail** fields are only considered for accounts of type **RESELLER**. If set for an **END_CLIENT**, they will be ignored.
- **assignedPricingProfileResource** must be a pricing profile owned by the direct parent of the account to be created. Alternatively the default pricing profile of the direct parent can be passed here (e.g. /account/2645/defaultresellerpricingprofile).
- **billingMethod** can be set to either **UBERSMITH** or **EXTERNAL** (default).
- **ubersmithId** is only used for internal resellers and can be left out.

Modify Account

HTTP Verb	PUT
URI Template	/account/{accID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/account/99 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP CS2c7z00AqJ+6QJl/YBjlC/GZUtlEH33dVKy/uqfwU=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 332
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888

{
  "name": "MyNewResellerName",
  "description": "This is a different description for my new reseller.",
  "email": "mail@mynewreseller.com",
  "adminUrl": "http://www.admin.mynewreseller.com/login",
  "reportBugEmail": "bugs@mynewreseller.com",
  "clientAssignedId": "345",
  "permissions": {
    "reseller": true,
    "virtual": true,
    "bareMetal": false
  }
}
```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 25 Jan 2012 16:56:28 GMT

{
  "name": "My New Reseller Name",
  "description": "This is a different description for my new reseller.",
  "signUpDate": "2012/01/18 12:24:16",
  "email": "mail@mynewreseller.com",
  "adminUrl": "http://www.admin.mynewreseller.com/login",
  "reportBugEmail": "bugs@mynewreseller.com",
  "clientAssignedId": "MyNewResellerID",
  "accountResource": {
    "resourceURL": "/account/99"
  },
  "parentAccountResource": {
    "resourceURL": "/account/88"
  },
  "primaryContactResource": {
    "resourceURL": "account/99/primaryContact"
  },
  "technicalContactResource": {
    "resourceURL": "account/99/technicalContact"
  },
  "permissions": {
    "reseller": true,
    "virtual": true,
    "bareMetal": false
  }
}

```

Field Name	Required for Resellers	Required for End-Clients
adminUrl	✓	
clientAssignedId		
description		
email	✓	✓
name	✓	✓
permissions	✓	
reportBugEmail	✓	

Notes

- **signUpDate** is date formatted **yyyy/MM/dd HH:mm:ss**
- **adminUrl** and **reportBugEmail** fields are only considered for accounts of type **RESELLER**. If set for an **END_CLIENT**, they will be ignored.

Get Primary Contact

HTTP Verb	GET
URI Template	/account/{acctID}/primarycontact
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/99/primaryContact HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json.+json
Authorization: PNCP caGGxnwsLljSFB7oNxq/UAuI/v3YkeD8WxOyE/eGaHs=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server:Apache-Coyote/1.1
Pragma:no-cache
Expires:Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control:no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json.
Transfer-Encoding: chunked
Date: Wed, 01 Feb 2012 16:29:25 GMT

{
  "primaryContactResource":{
    "resourceURL":"account/99/primaryContact"
  },
  "name":"John",
  "surname":"Smith",
  "email":"johns@mynewreseller.com",
  "phone":"458956891258"
}
```


Modify Primary Contact

HTTP Verb	PUT
URI Template	/account/{acctID}/primarycontact
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/account/99/primaryContact HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json.
Authorization: PNCPRiPRdnHM9DAD6aVSNQ9UqTocG3UI7JyGzhvZP2+BeSk=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 115
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
{
  "name": "Jill",
  "surname": "Smith",
  "email": "jills@mynewreseller.com",
  "phone": "458956891258"
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json.
Transfer-Encoding: chunked
Date: Wed, 01 Feb 2012 16:29:25 GMT

{
  "primaryContactResource": {
    "resourceURL": "account/99/primaryContact"
  },
  "name": "Jill",
  "surname": "Smith",
  "email": "jills@mynewreseller.com",
  "phone": "458956891258"
}
```

Field Info

Field Name	Required
email	✓
name	✓
phone	✓
surname	✓

Get Technical Contact

HTTP Verb	GET
URI Template	/account/{accID}/technicalcontact
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/99/technicalContact HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp caGGxnwsLljSFB7oNxq/UAuI/v3YkeD8WxOyE/eGaHs=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 01 Feb 2012 16:29:25 GMT

{
  "technicalContactResource": {
    "resourceURL": "account/99/technicalContact"
  },
  "name": "Ralph",
  "surname": "Laurie",
  "email": "ralphl@mynewreseller.com",
  "phone": "1234567890"
}
```

Modify Technical Contact

HTTP Verb	PUT
URI Template	/account/{acctID}/technicalcontact
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/account/99/technicalContact HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json.0+json
Authorization: PNCp riPRdnHM9DAd6aVSNQ9UqTocG3UI7JyGzhvZP2+BeSk=
Content-Type: application/vnd.pncp.v.5.0+json +json
Content-Length: 115
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
{
  "name": "Rita",
  "surname": "Lauren",
  "email": "rital@mynewreseller.com",
  "phone": "09876555600"
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 01 Feb 2012 16:29:25 GMT

{
  "technicalContactResource": {
    "resourceURL": "account/99/technicalContact"
  },
  "name": "Rita",
  "surname": "Lauren",
  "email": "rital@mynewreseller.com",
  "phone": "09876555600"
}
```

Field Info

Field Name	Required for End-Clients
email	✓
name	✓
phone	✓
surname	✓

Get Node Details for Account

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/99/node/1 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCPRiPRdnHM9DAd6aVSNQ9UqTocG3UI7JyGzhvZP2+BeSk=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 115
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 01 Feb 2012 16:29:25 GMT

{
    "reservePrivateNetwork":true,
    "vlanID":896
}
```

Firewall APIs

The API Calls in this section are for actions performed on Firewalls, such as Get Details, Modify Firewall, and Status Updating.

Get Firewall Details

HTTP Verb	GET
URI Template	/account/{acctID}/node/{nodeID}/firewall
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/node/1/firewall HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP Q7x4qkpHwmWYzMk7CKJvKWZyScIlJaYY1fFWMuMB1lI=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Tue, 31 Jan 2012 15:54:24 GMT
```

```
{
  "firewallStatus": "ON",
  "lastUpdatedTimestamp": "2012/01/31 15:49:43",
  "firewallRules": [
    {
      "name": "rule1",
      "destinationIp": "ANY",
      "destinationPort": "8080",
      "sourceIp": "ANY",
      "sourcePort": "ANY",
      "firewallProtocol": "TCP",
      "firewallRuleAction": "ALLOW",
      "rulePriority": 10545,
      "active": true
    }
  ]
}
```

Notes

- **firewallStatus** can be set to **NOT_PROVISIONED**, **ON**, **OFF** or **REMOTE_ONLY**.
- **lastUpdatedTimestamp** is a date of format **yyyy/MM/dd HH:mm:ss**.
- **sourceIp** can be one of the following:
 - **ANY** (any IP),
 - An IP range (e.g. 64.38.194.0 – 64.38.194.255), or
 - A subnet mask (e.g. 64.38.194.0/24).
- **sourcePort** and **destinationPort** can be set to multiple ports separated by commas (e.g. 8080, 8443) or to ranges (e.g. 8080-8085).
- **destinationIp** can be set to either **ANY** or a public IP of one of the account's virtual machines.
- The higher the value of **rulePriority**, the lower the priority of the rule.

Modify Firewall

HTTP Verb	PUT
URI Template	/account/{accID}/node/{nodeID}/firewall
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/account/88/node/1/firewall HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCPEWHBIyWfPKYCl9ZtNiruAmViuapvu7Vdw5ukeIVZ9ZQ=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 529
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

```
{
  "firewallStatus": "ON",
  "firewallRules": [
    {
      "name": "rule1",
      "sourceIp": "192.0.0.1-192.0.0.3",
      "sourcePort": "ANY",
      "destinationIp": "ANY",
      "destinationPort": "8080",
      "firewallProtocol": "TCP",
      "firewallRuleAction": "ALLOW",
      "rulePriority": 2,
      "active": true
    },
    {
      "name": "rule2",
      "sourceIp": "ANY",
      "sourcePort": "8080,8443",
      "destinationIp": "ANY",
      "destinationPort": "8080",
      "firewallProtocol": "TCP",
      "firewallRuleAction": "ALLOW",
      "rulePriority": 3,
      "active": true
    }
  ]
}
```

Notes

- **firewallStatus** can be set to **NOT_PROVISIONED**, **ON**, **OFF** or **REMOTE_ONLY**.
- **lastUpdatedTimestamp** is a date of format **yyyy/MM/dd HH:mm:ss**.
- **sourceIp** can be one of the following:
 - **ANY** (any IP),
 - An IP range (e.g. 64.38.194.0 – 64.38.194.255), or
 - A subnet mask (e.g. 64.38.194.0/24).
- **sourcePort** can be set to multiple ports separated by commas (e.g. 8080, 8443) or to ranges (e.g. 8080-8085).
- **destinationIp** can be set to either **ANY** or a public IP of one of the account's virtual machines.
- **firewallProtocol** can be set to TCP or UDP.
- **firewallRuleAction** can be set to ALLOW or DENY.
- The higher the value of **rulePriority**, the lower the priority of the rule.

Request Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.1.0+json
Transfer-Encoding: chunked
Date: Tue, 31 Jan 2012 16:17:49 GMT

{
  "firewallStatus": "ON",
  "lastUpdatedTimestamp": "2012/01/31 17:16:40",
  "firewallRules": [
    {
      "name": "rule1",
      "sourceIp": "192.0.0.1-192.0.0.3",
      "sourcePort": "ANY",
      "destinationIp": "ANY",
      "destinationPort": "8080",
      "firewallProtocol": "TCP",
      "firewallRuleAction": "ALLOW",
      "rulePriority": 1,
      "active": true
    },
    {
      "name": "rule2",
      "sourceIp": "ANY",
      "sourcePort": "8080,8443",
      "destinationIp": "ANY",
      "destinationPort": "8080",
      "firewallProtocol": "TCP",
      "firewallRuleAction": "ALLOW",
      "rulePriority": 2,
      "active": true
    }
  ]
}
```


Field Info

Field Name	Required
firewallStatus	✓
firewallRules	default: [empty list]
[firewallRules].name	✓
[firewallRules].sourceIp	✓
[firewallRules].sourcePort	✓
[firewallRules].destinationIp	✓
[firewallRules].destinationPort	✓
[firewallRules].firewallProtocol	✓
[firewallRules].firewallRuleAction	✓
[firewallRules].rulePriority	✓
[firewallRules].active	✓

Modify Firewall Status

HTTP Verb	PUT
URI Template	/account/{accID}/node/{nodeID}/firewall/status={on off remote_only}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```

PUT /pncp-external-api-rest/account/88/node/1/firewall/status? status=on
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP A8EF1cotEV8ZASJGq7nsT0MPrVzVuNjkQmeAN5kl37k=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:04:20 GMT
```

```
{
  "firewallStatus":"ON",
  "lastUpdatedTimestamp":1327586640000,
  "firewallRules":[
    {
      "name":"allow only DB Machine",
      "destinationIp":"10.0.0.15",
      "destinationPort":"8080",
      "sourceIp":"ANY",
      "sourcePort":"ANY",
      "firewallProtocol":"TCP",
      "firewallRuleAction":"ALLOW",
      "rulePriority":10545,
      "active":true
    }
  ]
}
```

Billing APIs

This section details API Calls related to Billing including Rated Usage and Usage by Node.

Get Rated Usage

HTTP Verb	GET
URI Template	/account/{acctID}/ratedusage/virtual?detailed={true false}&startTime={st}&endTime={et}
MIME Type	application/vnd.pncp.v1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-
rest/account/88/ratedusage/virtual?detailed=true&endTime=1327586794626
&startTime=1324994795026 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP J0PVMr5Tp90lnIKNp9wyXh7ztb9FOhJcb+86tuEqRWs=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response (When Detailed is TRUE)

Note: The JSON body of the example response has been trimmed to improve the readability.

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:06:52 GMT

{
  "startTime":"2012/01/31 16:51:00",
  "endTime":"2012/03/01 01:35:00",
  "currencyCode":"840",
  "totalAmount":94.000000,
  "ratedUsageItems":[
    {
      "amountToBill":17.000000,
      "quantity":10.0,
      "unitPrice":1.700000,
      "pricePointDescription":"1 outgoing non-load balanced traffic
[GB]"
    },
    {
      "amountToBill":17.000000,
      "quantity":10.0,
      "unitPrice":1.700000,
      "pricePointDescription":"1 outgoing load balanced traffic [GB]"
    },
    ...
    {
      "amountToBill":30.000000,
      "quantity":20.0,
      "unitPrice":1.500000,
      "pricePointDescription":"1 incoming non-load balanced traffic
[GB]"
    },
    {
      "amountToBill":30.000000,
      "quantity":20.0,
      "unitPrice":1.500000,
      "pricePointDescription":"1 incoming load balanced traffic [GB]"
    }
  ]
}
```

Sample Response (When Detailed is FALSE)

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:11:16 GMT

{
  "startTime": "2012/01/31 16:51:00",
  "endTime": "2012/03/01 01:35:00",
  "currencyCode": "840",
  "totalAmount": 94.000000,
  "ratedUsageItems": null
}

```

Notes

- **startTime** and **endTime** must be specified in Mountain Standard Time (MST).
- The **endTime** field in the response represents the latest date for which records are available within the time period specified in the request. The request will return a 404 error if there are no billing records within the time period specified. Below is a table showing the resultant **endTime** in the response for different scenarios:

Request startTime	Request endTime	Last Billing Record	Response endTime
2013/01/15 00:00:00	2013/02/15 00:00:00	2013/01/01 00:00:00	404 Exception
2013/01/15 00:00:00	2013/02/15 00:00:00	2013/02/01 00:00:00	2013/02/01 00:00:00
2013/01/15 00:00:00	2013/02/15 00:00:00	2013/03/01 00:00:00	2013/02/15 00:00:00

Get Node Rated Usage

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}/ratedusage/virtual?detailed={true false}&startTime={st}&endTime={et}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-
rest/account/88/node/1/ratedusage/virtual?detailed=true&endTime=13275867946
26 &startTime=1324994795026 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP J0PVMr5Tp90lnIKNp9wyXh7ztb9FOhJcb+86tuEqRWs=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response (When DETAILED is TRUE)

Note: The JSON body of the example response has been trimmed to improve the readability.

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:06:52 GMT

{
  "startTime": "2012/01/31 16:51:00",
  "endTime": "2012/03/01 01:35:00",
  "currencyCode": "840",
  "totalAmount": 47.000000,
  "ratedUsageItems": [
    {
      "amountToBill": 8.500000,
      "quantity": 5.0,
      "unitPrice": 1.700000,
      "pricePointDescription": "1 outgoing non-load balanced traffic
[GB]"
    },
    {
      "amountToBill": 8.500000,
      "quantity": 5.0,
      "unitPrice": 1.700000,
      "pricePointDescription": "1 outgoing load balanced traffic [GB]"
    },
    ...
    {
      "amountToBill": 15.000000,
      "quantity": 10.0,
      "unitPrice": 1.500000,
      "pricePointDescription": "1 incoming non-load balanced traffic
[GB]"
    },
    {
      "amountToBill": 15.000000,
      "quantity": 10.0,
      "unitPrice": 1.500000,
      "pricePointDescription": "1 incoming load balanced traffic [GB]"
    }
  ]
}
```

Sample Response (When DETAILED is FALSE)

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:11:16 GMT

{
  "startTime": "2012/01/31 16:51:00",
  "endTime": "2012/03/01 01:35:00",
  "currencyCode": "840",
  "totalAmount": 47.000000,
  "ratedUsageItems": null
}

```

Notes

- **billingUnit** can take values **HOURL, BYTE, MEGABYTE, GIGABYTE, TERABYTE, BYTE_HOUR, MEGABYTE_HOUR, GIGABYTE_HOUR, TERABYTE_HOUR** or **NONE**.
- The request will return a 404 error if there are no billing records available for that account at the time of the request; no billing records have been created. If no amount is to be billed for that account for the requested period, the request will return a report with a total amount of 0.

Request startTime	Request endTime	Last Billing Record	Response endTime
2013/01/15 00:00:00	2013/02/15 00:00:00	2013/01/01 00:00:00	404 Exception
2013/01/15 00:00:00	2013/02/15 00:00:00	2013/02/01 00:00:00	2013/02/01 00:00:00
2013/01/15 00:00:00	2013/02/15 00:00:00	2013/03/01 00:00:00	2013/02/15 00:00:00

Orders APIs

API Calls pertaining to Orders.

Get List of Service Plans

HTTP Verb	GET
URI Template	/account/{accID}/serviceplans
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/99/serviceplans HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP v5Bv8HYzhhrnSeALHnt6eCiKcdDRf5F32dIaRvWwlss=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 08:56:08 GMT

{
  "servicePlanSummaries":[
    {
      "name":"Intel Xeon E3-1230 (4x3.2GHz)",
      "resource":{
        "resourceURL":"/account/99/serviceplan/25"
      }
    },
    {
      "name":"Intel Xeon E3-1240 v3 (4x3.4GHz)",
      "resource":{
        "resourceURL":"/account/99/serviceplan/26"
      }
    }
  ],
  {

```

(Continued)

```

    "name": "Intel Xeon E3-1270 v3 (4x3.5GHz)",
    "resource": {
      "resourceURL": "/account/99/serviceplan/32"
    },
    {
      "name": "Dual Intel Xeon E5-2609 (8x2.4GHz)",
      "resource": {
        "resourceURL": "/account/99/serviceplan/33"
      }
    }
  ]
}

```

Get Service Plan Details

HTTP Verb	GET
URI Template	/account/{accID}/serviceplan/{servicePlanID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```

GET /pncp-external-api-rest/account/99/serviceplan/33 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP v5Bv8HYzhhrnSeALHnt6eCiKcdDRf5F32dIaRvWwlss=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888

```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 08:56:08 GMT

{
  "name": "USA E5-2670 v3 (3-082014) [Secured Servers, 1]",
  "notes": null,
  "optionGroups": [
    {

```

(Continued)

```

"name": "Datacenter",
  "required": true,
  "options": [
    {
      "description": "Phoenix (PHX)",
      "restrictions": "NONE",
      "defaultFor": "NONE",
      "optionResource": {
        "resourceURL": "/serviceplan/674/option/28703"
      }
    },
    {
      "description": "Ashburn (ASH)",
      "restrictions": "NONE",
      "defaultFor": "NONE",
      "optionResource": {
        "resourceURL": "/serviceplan/674/option/28704"
      }
    },
    {
      "description": "Amsterdam (NLD)",
      "restrictions": "NONE",
      "defaultFor": "NONE",
      "optionResource": {
        "resourceURL": "/serviceplan/674/option/28705"
      }
    }
  ],
},
{
  "name": "RAM (In GB)",
  "required": false,
  "options": [
    {
      "description": "64 GB ECC DDR3 (Included)",
      "restrictions": "NONE",
      "defaultFor": "ALL",
      "optionResource": {
        "resourceURL": "/serviceplan/674/option/28706"
      }
    },
    {
      "description": "96 GB ECC DDR3",
      "restrictions": "NONE",
      "defaultFor": "NONE",
      "optionResource": {
        "resourceURL": "/serviceplan/674/option/28707"
      }
    }
  ],
}

```

(Continued)

```

"description": "128 GB ECC DDR3",
  "restrictions": "NONE",
  "defaultFor": "NONE",
  "optionResource": {
    "resourceURL": "/serviceplan/674/option/28708"
  }
},
{
  "description": "192 GB ECC DDR3",
  "restrictions": "NONE",
  "defaultFor": "NONE",
  "optionResource": {
    "resourceURL": "/serviceplan/674/option/28709"
  }
},
{
  "description": "256 GB ECC DDR3",
  "restrictions": "NONE",
  "defaultFor": "NONE",
  "optionResource": {
    "resourceURL": "/serviceplan/674/option/28710"
  }
}
]
}
]
}
}

```

Notes:

- The Boolean “required” field denotes whether an option from that group is expected to be specified explicitly when creating an order.
- The “defaultFor” field flags the option as a **default selection** for that option group. The field can show 3 values:
 - “ALL” denotes that the option is a default for **all** available datacenters.
 - “NONE” denotes that the option is not a default and will not be selected if not specified.
 - A set of datacenter abbreviations for which the option is a default for e.g. “PHX, NLD” is default for Phoenix and Netherlands service plans otherwise it is not the default and the default selection falls under a separate option.

Submit Order

HTTP Verb	POST
URI Template	/account/{accID}/order
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/account/99/order HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP v5Bv8HYzhhrnSeALHnt6eCiKcdDRf5F32dIaRvWwlss=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888

{
  "planId":674,
  "specialInstructions":"none",
  "optionResources":[
    {
      "resourceURL": "/serviceplan/674/option/28703"
    },
    {
      "resourceURL": "/serviceplan/674/option/28812"
    }
  ],
  "couponCode":"MYCOUPON"
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 08:56:08 GMT

{
  "resourceURL":"/account/99/order/16298"
}
```

Field Info

Field Name	Required
planID	✓
optionResources	✓
specialInstructions	
couponCode	

Get Orders

HTTP Verb	GET
URI Template	/account/{accID}/order
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/99/order HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP v5Bv8HYzhhrnSeALHnt6eCiKcdDRf5F32dIaRvWwlss=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 08:56:08 GMT

[
  {
    "resourceURL": "/account/99/order/1"
  },
  {
    "resourceURL": "/account/99/order/2"
  },
  {
    "resourceURL": "/account/99/order/3"
  }
]
```

Get Order Details

HTTP Verb	GET
URI Template	/account/{accID}/order/{orderID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can only invoke this for any child accounts they own not for their own account. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/99/order/16298 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP bMEtE5MT27VZi2qoFkMXgUb/jO+5V7iEY7MJyUgjCOs=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 43
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 08:56:10 GMT
```

```
{
  "orderId":16298,
  "ts":1403817034,
  "orderFormId":210,
  "orderQueueId":8,
  "orderStatus":41,
  "priority":1,
  "owner":55,
  "clientId":3481,
  "opportunityId":0,
  "listedCompany":"HOGFyilo",
  "total":98.0,
  "hash":"3b5cd-03334",
  "activity":1403854756,
  "info":{
    "login":"testUser",
    "firstName":"TEST NAME",
    "lastName":"TEST SURNAME",
    "fullName":"TEST NAME TEST SURNAME",
    "emailAddress":"test@test.com",
    "country":"US",
    "ipAddress":"64.64.64.64",
    "company":"Test",
    "pack":{
      "title":"Pack 01",
      "quantity":1
    }
  },
  "signature":""
}
```


Cancel Order

HTTP Verb	DELETE
URI Template	/account/{accID}/order/{orderID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
DELETE /pncp-external-api-rest/account/99/order/16298 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP v5Bv8HYzhhrnSeALHnt6eCiKcdDRf5F32dIaRvWwlss=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 08:56:08 GMT

{
    "resourceURL": "/account/99/order/16298 "
}
```

Service APIs

This section details API Calls related to services associated with a Client Account.

Get List of Services by Account

HTTP Verb	GET
URI Template	/account/{accID}/service
MIME Type	application/vnd.pncp.v.5.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Any organization that has an Ubersmith account.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/service HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Mon, 26 Oct 2015 08:56:08 GMT
[
  {
    "description": "Parent Service Description",
    "servicePlan": "Development",
    "billingPeriod": "MONTHLY",
    "currentRenewalPeriodStart": 1447225200000,
    "currentRenewalPeriodEnd": 1447225200000,
    "renewed": true,
    "cost": 76.8,
    "status": "ACTIVE",
    "paymentDetails": "visa",
    "resource": {
      "resourceURL": "/service/23300"
    },
    "parentResource": null
  },
]
```

(Continued)

```
{
  "description": "Child Service Description",
  "servicePlan": "Setup Fee",
  "billingPeriod": "ONE_TIME_FEE",
  "currentRenewalPeriodStart": 1447225200000,
  "currentRenewalPeriodEnd": null,
  "renewed": false,
  "cost": 50,
  "status": "ACTIVE",
  "paymentDetails": "visa",
  "resource": {
    "resourceURL": "/service/23301"
  },
  "parentResource": {
    "resourceURL": "/service/23300"
  }
}
```

Get Service Details

HTTP Verb	GET
URI Template	/service/{serviceID}
MIME Type	application/vnd.pncp.v.5.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Any organization that has an Ubersmith account.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/service/23637 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Type: application/json
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Mon, 16 Dec 2015 18:56:08 GMT
{
  "description": "AHS Secured Sever 1",
  "servicePlan": "ASH USA E3-1240 v3 (3-102013) [Secured Servers, 1]",
  "servicePrice": 368,
  "discount": 0,
  "discountType": "PERCENTAGE",
  "quantity": 5,
  "totalCost": 4215,
  "subTotal": 1438,
  "totalDiscount": 595,
  "code": "UA031013E31240"
  "applicableTaxes": [],
  "serviceNotes": [],
  "parentService": null,
  "billingInformation": {
    "unPaidBalance": 0,
    "status": "ACTIVE",
    "billingPeriod": "MONTHLY",
    "plannedActivationDate": 0,
    "activationDate": 0,
    "clientAcceptanceDate": 0,
    "expectedCancellationDate": 0,
    "billingStartDate": 1450162800000,
    "lastRenewalDate": 1450162800000,
    "renewalDate": 1452841200000,
    "endDate": 0,
    "postRenew": false,
    "billPrior": false,
    "autoCharge": true,
    "account": {
      "creditCardType": "amex",
      "creditCardNumber": "0005",
      "creditCardExpire": "1218"
    },
    "autoSuspend": false,
    "autoCancel": false,
    "invoiceStatus": "UNBILLED"
  },
},

```

(Continued)

```

"options": [
  {
    "name": "RAID OPTIONS",
    "description": "Software RAID 1 - (Requires 2 identical SATA HDDs)",
    "discount": 50,
    "price": 150,
    "groupName": null,
    "discountType": "PERCENTAGE"
  },
  {
    "name": "ADDITIONAL IP ALLOCATION",
    "description": "No Additional IPs",
    "discount": 50,
    "price": 800,
    "groupName": null,
    "discountType": "PERCENTAGE"
  },
  {
    "name": "OPERATING SYSTEM",
    "description": "CentOS 64 Bit (Latest Stable) (Included)",
    "discount": 0,
    "price": 0,
    "groupName": null,
    "discountType": "PERCENTAGE"
  },
  {
    "name": "CONTROL PANELS",
    "description": "No Control Panel",
    "discount": 0,
    "price": 0,
    "groupName": null,
    "discountType": "PERCENTAGE"
  },
],
"childServices": [
  {
    "resourceURL": "/service/23637"
  }
],
"comments": null,
}

```

Allocation APIs

API Calls pertaining to Allocations including Get Limits and Modify Limits.

Get Allocation Limits

HTTP Verb	GET
URI Template	/account/{acctID}/node/{nodeID}/allocation/virtual
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request. Note that Max values won't be populated if the method is invoked for the same account that is logged in.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/99/node/1/allocation/virtual HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp v5Bv8HYzhhrnSeALHnt6eCiKcdDRf5F32dIaRvWw1ss=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 08:56:08 GMT
```

```
{
  "memoryMB":50000,
  "maxMemoryMB":1124863,
  "usedMemoryMB":30,
  "storageGB":2000,
  "maxStorageGB":19997,
  "usedStorageGB":100,
  "vCPUs":30,
  "maxVCPUs":47,
  "usedVCPUs":6,
  "networkStorageGb":256000000,
  "maxNetworkStorageGB":512000000,
  "usedNetworkStorageGB":0
}
```

Modify Allocation Limits

HTTP Verb	PUT
URI Template	/account/{accID}/node/{nodeID}/allocation/virtual
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can only invoke this for any child accounts they own not for their own account. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/account/99/node/1/allocation/virtual HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp bMEtE5MT27VZi2qoFkMXgUb/jO+5V7iEY7MJyUgjCOs=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 43
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888

{
  "memoryMB":60000,
  "storageGB":3000,
  "vCPUs":30,
  "networkStorageGb":256000000,
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 08:56:10 GMT

{
  "memoryMB":60000,
  "maxMemoryMB":1124863,
  "usedMemoryMB":30,
  "storageGB":3000,
  "maxStorageGB":19997,
  "usedStorageGB":100,
  "vCPUs":30,
  "maxVCPUs":47,
  "usedVCPUs":6,
  "networkStorageGb":256000000,
  "usedNetworkStorageGB":0,
  "maxNetworkStorageGB":512000000,
}
```

Field Info

Field Name	Required
memoryMB	✓
storageGB	✓
vCPUs	✓
networkStorageGb	✓

Devices APIs

This section lists API Calls used for actions on Devices including List and List by Node.

Get List of Devices by Account for All Nodes

HTTP Verb	GET
URI Template	/account/{acctID}/device
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/99/device HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp bMEtE5MT27VZi2qoFkMXgUb/jO+5V7iEY7MJyUgjCOs=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 43
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

[
  {
    "resourceURL": "/virtualmachine/540"
  },
  {
    "resourceURL": "/baremetaldevice/95"
  },
  {
    "resourceURL": "/baremetalfirewall/98"
  }
]
```

Get List of Devices by Node

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}/device
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/99/node/1/device HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP bMEtE5MT27VZi2qoFkMXgUb/jO+5V7iEY7MJyUgjCOs=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 43
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

[
  {
    "resourceURL": "/virtualmachine/540"
  },
  {
    "resourceURL": "/baremetaldevice/95"
  },
  {
    "resourceURL": "/baremetalfirewall/98"
  }
]
```

Virtual Machine Services

This section lists API Calls used for actions on Virtual Machines including List, List by Node, Details, Create, Power Status, Reboot, Clone, Modify, and Delete.

Get List of Virtual Machines by Account for All Nodes

HTTP Verb	GET
URI Template	/account/{accID}/virtualmachine
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/virtualmachine HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

[
  {
    "resourceURL": "/virtualmachine/540"
  },
  {
    "resourceURL": "/virtualmachine/550"
  },
  {
    "resourceURL": "/virtualmachine/628"
  }
]
```

Get List of Virtual Machines by Node

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}/device/virtualmachine
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/node/1/device/virtualmachine
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

[
  {
    "resourceURL": "/virtualmachine/540"
  },
  {
    "resourceURL": "/virtualmachine/550"
  }
]
```

Get Virtual Machine Details

HTTP Verb	GET
URI Template	/virtualmachine/{vmID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/virtualmachine/542 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP MBSGE4XjJBXa18d/FBaT5N7onODL2UYNwuKE3qZZmd4=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:24:35 GMT
```

```
{
  "name": "ExternalVMTest646bca17",
  "description": "this is a test VM",
  "storageGB": 16,
  "storageType": "SATA",
  "memoryMB": 512,
  "vCPUs": 1,
  "powerStatus": "POWERED_OFF",
  "nodeResource": {
    "resourceURL": "/node/1"
  },
  "accountResource": {
    "resourceURL": "/account/4138"
  },
  "powerStatus": "POWERED_OFF",
  "operatingSystemTemplate": {
    "resourceURL": "/ostemplate/3"
  },
  "imageResource": {
    "resourceURL": null
  },
}
```

(Continued)

```
"disks":[
  {
    "resourceURL":"/virtualmachine/542/disk/21"
  },
  {
    "resourceURL":"/virtualmachine/542/disk/22"
  }
],
"macAddress":"01:23:45:67:89:ab",
"deducedPrivateIps":[
  "10.0.0.59"
],
"ipMappings":[
  {
    "privateIp":"10.0.0.56",
    "publicIps":[
      "172.27.20.72",
      "172.27.20.73"
    ]
  }
]
}
```

Create Virtual Machine

HTTP Verb	POST
URI Template	/account/{acctID}/node/{nodeID}/device/virtualmachine
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Asynchronous.

Sample Request (Creating a New Virtual Machine from Scratch)

```
POST /pncp-external-api-rest/account/88/node/1/device/virtualmachine
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp hZZG7Jljk8QmGLpABvKMXGMMh54pb8ZlQ/2XtQWX/g=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 257
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
{
  "name": "ExternalVMTestc4de7e9b",
  "description": "this is a test VM",
  "storageGB": 16,
  "memoryMB": 512,
  "vCPUs": 1,
  "storageType": "SATA",
  "powerStatus": "POWERED_OFF",
  "operatingSystemTemplate": {
    "resourceURL": "/ostemplate/3"
  },
  "imageResource": null,
  "newOperatingSystemAdminPassword": "xxxxxx"
}
```

Sample Request (Creating a New Virtual Machine from an Image)

```

POST /pncp-external-api-rest/account/88/node/1/device/virtualmachine
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp hZZG7Jljjk8QmGLpABvKMXGMMh54pb8ZlQ/2XtQWX/g=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 257
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
{
  "name": "ExternalVMTestc4de7e9b",
  "description": "this is a test VM",
  "storageGB": 16,
  "memoryMB": 512,
  "vCPUs": 1,
  "storageType": "SATA",
  "powerStatus": "POWERED_OFF",
  "operatingSystemTemplate": null,
  "imageResource": {
    "resourceURL": "/image/3"
  }
}

```

Sample Response

```

HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:06:13 GMT

{
  "resourceURL": "/task/8ab670f8-36fd-496d-b214-17943e742c9f"
}

```


Field Info

Field Name	Required
name	✓
description	
storageGB	✓
memoryMB	✓
vCPUs	✓
storageType	Default: SATA
powerStatus	Default: POWERED_OFF
operatingSystemTemplate	✓ (if imageResource is null)
newOperatingSystemAdminPassword	✓ (if imageResource is null)
imageResource	✓ (if operatingSystemTemplate and newOperatingSystemAdminPassword are null)

Power On or Power Off Virtual Machine

HTTP Verb	PUT
URI Template	/virtualmachine/{vmID}/power?powerState={on off}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked by	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/virtualmachine/542/power?powerState=on HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp zWM8XSTNHA2+WbZJtzzRFTVz64oB/YHVfeAgvZN/jBw=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:54:29 GMT

{
  "resourceURL": "/task/3d2cc3b9-7e36-4e17-87f8-09dca3fded2b"
}
```

Reboot Virtual Machine

HTTP Verb	PUT
URI Template	/virtualmachine/{vmID}/reboot
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked by	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/virtualmachine/542/reboot HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP AmQseqTmziqOD1UPhxcxQudHjvqQf8b03FOWR8DNXwU=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:57:45 GMT

{
  "resourceURL": "/task/ae7e2066-99b9-4733-8b3a-220cd5cab608"
}
```

Clone Virtual Machine

HTTP Verb	POST
URI Template	/virtualmachine/{vmID}/reboot
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked by	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
POST /pncp-external-api-rest/virtualmachine/542/clone HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCB BFkklGpCFyDBBq7rCbTp+i3NQEM7haY8SAZgDA/I5nw=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 116
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888

{
  "name": "ClonedVirtualMachine",
  "operatingSystemCurrentUsername": "root",
  "operatingSystemCurrentPassword": "xxxxxxx"
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 12:00:43 GMT
{
  "resourceURL": "/task/58f82035-0618-4bda-8c62-6343676951aa"
}
```

Field Info

Field Name	Required
name	✓
operatingSystemCurrentUsername	✓
operatingSystemCurrentPassword	✓

Modify Virtual Machine

HTTP Verb	PUT
URI Template	/virtualmachine/{vmID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked by	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/virtualmachine/545 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP xo/8XzmaxyMAYDtBrsKqXzN9LfsGUpt2xFh3UnVAwd8=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 60
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "description": "new description",
  "memoryMB": 512,
  "vCPUs": 2
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:17:50 GMT
{
  "resourceURL": "/task/29879947-213c-40f5-963a-7df2a3af0897"
}
```

Field Info

Field Name	Required
description	
memoryMB	✓
vCPUs	✓

Delete Virtual Machine

HTTP Verb	DELETE
URI Template	/virtualmachine/{vmID}?releaseIPs={true false}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked by	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
DELETE /pncp-external-api-rest/virtualmachine/545?releaseIPs=false HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp 7JG6Bdp6pionVXbvA0h1ZQ0yjmSw3gDQZLFWzVBOXM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:48:03 GMT
{
  "resourceURL": "/task/1eb75180-46eb-464b-ac21-a8a8b9d59d7f"
}
```

Notes

- If releaseIPs is set to true, any IPs present on the virtual machine to be deleted will be released back into the global pool. If this parameter is set to false, these IPs will be added to the list of reserved IPs of the account.

Get Virtual Machine Tags

HTTP Verb	GET
URI Template	/account/{accID}/virtualmachine/{vmID}/tags
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/ account/1/virtualmachine/24/tags HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp 7JG6Bdp6pionVXbvA0h1ZQ0yjmSw3gDQZLFWzVBOXM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:48:03 GMT
[ {
    "resourceURL": "/account/1/virtualmachine/24/tags/erwgc"
  },
  {
    "resourceURL": "/account/1/virtualmachine/24/tags/test"
  }
]
```

Add Tag to Virtual Machine

HTTP Verb	PUT
URI Template	/account/{accID}/virtualmachine/{vmID}/tags/{tagName}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/ account/1/virtualmachine/24/tags/tagName
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp 7JG6Bdp6pionVXbvA0hlZQ0yjmoSw3gDQZLFWzVBOXM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:48:03 GMT
{
  "resourceURL": "/account/1/virtualmachine/24/tags"
}
```


Remove Tag from Virtual Machine

HTTP Verb	DELETE
URI Template	/account/{accID}/virtualmachine/{vmID}/tags/{tagName}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Synchronous.

Sample Request

```
DELETE /pncp-external-api-rest/ account/1/virtualmachine/24/tags/tagName
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 7JG6Bdp6pionVXbvA0hlZQ0yjmoSw3gDQZLFWzVBOXM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:48:03 GMT
{
  "resourceURL": "/account/1/virtualmachine/24/tags"
}
```

Bare Metal APIs

This section lists API Calls used for actions on Bare Metal Devices including List, List by Node and Modify.

Get List of Bare Metal Devices by Account for All Nodes

HTTP Verb	GET
URI Template	/account/{accID}/baremetaldevice
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/baremetaldevice HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

[
  {
    "resourceURL": "/baremetaldevice/540"
  },
  {
    "resourceURL": "/baremetaldevice/550"
  },
  {
    "resourceURL": "/baremetaldevice/628"
  }
]
```

Get List of Bare Metal Devices by Node

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}/baremetaldevice
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/node/1/baremetaldevice HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

[
  {
    "resourceURL": "/baremetaldevice/540"
  },
  {
    "resourceURL": "/baremetaldevice/550"
  }
]
```

Get List of Bare Metal Device Details

HTTP Verb	GET
URI Template	/baremetaldevice/{deviceID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/baremetaldevice/542 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP MBSGE4XjJBXa18d/FBaT5N7onODL2UYNwuKE3qZZmd4=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.2.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:24:35 GMT

{
  "name": "RealServer1",
  "description": "ModifyServerDescription",
  "nodeResource": {
    "resourceURL": "/node/1"
  },
  "accountResource": {
    "resourceURL": "/account/10"
  },
  "powerStatus": "POWERED_ON",
  "privateIps": [
    "172.23.0.27"
  ],
  "publicIps": [
    "66.85.161.218",
    "66.85.161.219",
    "66.85.161.220",
    "66.85.161.221",
    "66.85.161.222"
  ],
}
```

(Continued)

```

"ipmiIps":[
  "10.221.168.133"
],
"rootPassword":"pass",
"userAccount":"uname",
"userAccountPassword":"password",
"processor":"Dual E5506 (2x 2.13GHz Quad Core)",
"ramMB":"4096",
"storageGB":500,
"operatingSystemName":"CentOS",
"serviceName":"Dummy Service",
"servicePrice":0.0,
"invoiceStatus":"Unbilled",
"lastRenewedOn":1416812400000,
"renewalDate":1419404400000,
"serviceDiscount": 50,
"serviceDiscountType": "PERCENTAGE",
"serviceDiscountedPrice": 119,
"serviceBillingPeriod": "Monthly",
"childServicesList":[
  {
    "name":"testmt",
    "description":"Dummy Child Service",
    "servicePrice":20.0,
    "invoiceStatus":"Pre-billed",
    "lastRenewedOn":1414393200000,
    "renewalDate":1418108400000,
    "serviceDiscount": 8,
    "serviceDiscountType": "AMOUNT",
    "serviceDiscountedPrice": 10,
    "serviceBillingPeriod": "Monthly"
  }
],
"servicePlanList": [
  {
    "name": "RAM (In GB)",
    "description": "32 GB ECC DDR3",
    "servicePrice": 0,
    "invoiceStatus": null,
    "lastRenewedOn": null,
    "renewalDate": null,
    "serviceDiscount": 0,
    "serviceDiscountType": "PERCENTAGE",
    "serviceDiscountedPrice": 0,
    "serviceBillingPeriod": null
  },
  {
    "name": "RAID OPTIONS",
    "description": "No Raid",
    "servicePrice": 0,
    "invoiceStatus": null,
    "lastRenewedOn": null,
    "renewalDate": null,
    "serviceDiscount": 0,
    "serviceDiscountType": "PERCENTAGE",
    "serviceDiscountedPrice": 0,
    "serviceBillingPeriod": null
  }
]
}

```

Modify Bare Metal Device

HTTP Verb	PUT
URI Template	/baremetaldevice/{deviceID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for bare metal devices found in their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/baremetaldevice/542 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP MBSGE4XjJBXa18d/FBaT5N7onODL2UYNwuKE3qZZmd4=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "newName": "test bare metal device",
  "newDescription": "test bare metal device full description"
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:24:35 GMT

{
  "name": "RealServer1",
  "description": "ModifyServerDescription",
  "nodeResource": {
    "resourceURL": "/node/1"
  },
  "accountResource": {
    "resourceURL": "/account/10"
  },
  "powerStatus": "POWERED_ON",
  "privateIps": [
    "172.23.0.27"
  ],
}
```

(Continued)

```

"publicIps":[
  "66.85.161.218",
  "66.85.161.219",
  "66.85.161.220",
  "66.85.161.221",
  "66.85.161.222"
],
"ipmiIps":[
  "10.221.168.133"
],
"rootPassword":"pass",
"userAccount":"uname",
"userAccountPassword":"password",
"processor":"Dummy Service",
"ram":null,
"operatingSystemName":null,
"serviceName":"Dummy Service",
"servicePrice":0.0,
"invoiceStatus":"Unbilled",
"lastRenewedOn":1416812400000,
"renewalDate":1419404400000,
"childServicesList":[
  {
    "name":"testmt",
    "description":"Dummy Child Service",
    "cost":20.0,
    "invoiceStatus":"Pre-billed",
    "lastRenewedOn":1414393200000,
    "renewalDate":1418108400000
  }
],
"servicePlanList": [
  {
    "name": "RAM (In GB)",
    "description": "32 GB ECC DDR3",
    "servicePrice": 0,
    "invoiceStatus": null,
    "lastRenewedOn": null,
    "renewalDate": null,
    "serviceDiscount": 0,
    "serviceDiscountType": "PERCENTAGE",
    "serviceDiscountedPrice": 0,
    "serviceBillingPeriod": null
  },
  {
    "name": "RAID OPTIONS",
    "description": "No Raid",
    "servicePrice": 0,
    "invoiceStatus": null,
    "lastRenewedOn": null,
    "renewalDate": null,
    "serviceDiscount": 0,
    "serviceDiscountType": "PERCENTAGE",
    "serviceDiscountedPrice": 0,
    "serviceBillingPeriod": null
  }
]

```

Power On or Off Bare Metal Device

HTTP Verb	PUT
URI Template	/baremetaldevice/{deviceId}/power?powerState={on off}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for bare metal devices found in their own account as well as any other account they own. End-clients can invoke this for bare metal devices in their account only.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/baremetaldevice/542/power?powerState=on
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP zWM8XSTNHA2+WbZJtzRFTVz64oB/YHVfeAgvZN/jBw=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:54:29 GMT

{
  "resourceURL": "/task/3d2cc3b9-7e36-4e17-87f8-09dca3fded2b"
}
```


Reboot Bare Metal Device

HTTP Verb	PUT
URI Template	/baremetaldevice/{deviceId}/reboot
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for bare metal devices found in their own account as well as any other account they own. End-clients can invoke this for bare metal devices in their account only.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/baremetaldevice/542/reboot HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP AmQseqTmziqODlUPhxcxQudHjvqQf8bO3FOWR8DNXwU=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:57:45 GMT

{
  "resourceURL": "/task/ae7e2066-99b9-4733-8b3a-220cd5cab608"
}
```

Get Bare Metal Device Assignment

HTTP Verb	GET
URI Template	/baremetaldevice/{deviceId}/assignment
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/baremetaldevice/86/assignment HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

{
  "resourceURL": "/baremetaldevice/86/assignment/account/1"
}
```

Get Bare Metal Device Assignment Details

HTTP Verb	GET
URI Template	/baremetaldevice/{deviceId}/assignment/account/{accID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/baremetaldevice/86/assignment/account/1
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

{
  "deviceId": " 86",
  "assignedAccountId": "1"
}
```

Get Bare Metal Device Assignment Details

HTTP Verb	PUT
URI Template	/baremetaldevice/{deviceId}/assignment/account/{accID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/baremetaldevice/86/assignment/account/1
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

{
  "deviceId": " 86",
  "assignedAccountId": "1"
}
```

Remove Bare Metal Device Assignment

HTTP Verb	DELETE
URI Template	/baremetaldevice/{deviceId}/assignment/account/{accID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
DELETE /pncp-external-api-rest/baremetaldevice/86/assignment/account/1
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

{
  "deviceId": " 86",
  "assignedAccountId": null
}
```

Get Bare Metal Device Tags

HTTP Verb	GET
URI Template	/account/{accID}/baremetaldevice/{deviceID}/tags
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for bare metal devices found in their own account as well as any other account they own. End-clients can invoke this for bare metal devices in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/ account/1/baremetaldevice/24/tags HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 7JG6Bdp6pionVXbvA0hlZQ0yjmoSw3gDQZLFWzVBOXM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:48:03 GMT
[ {
  "resourceURL": "/account/1/tag/erwqc"
},
{
  "resourceURL": "/account/1/tag/test"
}]
```

Add Tag to Bare Metal Device

HTTP Verb	PUT
URI Template	/account/{accID}/baremetaldevice/{deviceId}/tags/{tagName}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for bare metal devices found in their own account as well as any other account they own. End-clients can invoke this for bare metal devices in their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/ account/1/baremetaldevice/24/tags/tagName
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 7JG6Bdp6pionVXbvA0hlZQ0yjmoSw3gDQZLFWzVBOXM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:48:03 GMT
{
  "resourceURL": "/account/1/baremetaldevice/24/tags"
}
```

Remove Tag from Bare Metal Device

HTTP Verb	DELETE
URI Template	/account/{accID}/baremetaldevice/{deviceId}/tags/{tagName}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for bare metal devices found in their own account as well as any other account they own. End-clients can invoke this for bare metal devices in their account only.
Response Mode	Synchronous.

Sample Request

```
DELETE /pncp-external-api-rest/ account/1/baremetaldevice/24/tags/tagName
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 7JG6Bdp6pionVXbvA0hlZQ0yjmoSw3gDQZLFWzVBOXM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:48:03 GMT
{
  "resourceURL": "/account/1/baremetaldevice/24/tags"
}
```


Bare Metal Firewall APIs

This section lists API Calls used for actions on Bare Metal Firewalls including List, List by Node and Modify.

Get List of Bare Metal Firewalls by Account for All Nodes

HTTP Verb	GET
URI Template	/account/{accID}/baremetalfirewall
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/baremetalfirewall HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

[
  {
    "resourceURL": "/baremetalfirewall/540"
  },
  {
    "resourceURL": "/baremetalfirewall/550"
  },
  {
    "resourceURL": "/baremetalfirewall/628"
  }
]
```

Get List of Bare Metal Firewalls by Account by Node

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}/baremetalfirewall
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/node/1/baremetalfirewall HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

[
  {
    "resourceURL": "/baremetalfirewall/540"
  },
  {
    "resourceURL": "/baremetalfirewall/550"
  }
]
```

Get Bare Metal Firewall Details

HTTP Verb	GET
URI Template	/baremetalfirewall/{firewallID}
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for bare metal firewalls found in their own account as well as any other account they own. End-clients can invoke this for bare metal firewall in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/baremetalfirewall/542 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP MBSGE4XjJBXa18d/FBaT5N7onODL2UYNwuKE3qZZmd4=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:24:35 GMT

{
  "name": "SonicFirewall",
  "description": "ModifyServerDescription",
  "nodeResource": {
    "resourceURL": "/node/1"
  },
  "accountResource": {
    "resourceURL": "/account/10"
  },
  "privateIps": [
    "172.23.0.27"
  ],
  "publicIps": [
    "66.85.161.218",
    "66.85.161.219",
    "66.85.161.220",
    "66.85.161.221",
    "66.85.161.222"
  ],
}
```

(Continued)

```

"rootPassword": "pass",
"userAccount": "uname",
"userAccountPassword": "password",
"serviceName": "Dummy Service",
"servicePrice": 0.0,
"invoiceStatus": "Unbilled",
"lastRenewedOn": 1416812400000,
"renewalDate": 1419404400000,
"serviceDiscount": 50,
"serviceDiscountType": "PERCENTAGE",
"serviceDiscountedPrice": 119,
"serviceBillingPeriod": "Monthly",
"childServicesList": [
  {
    "name": "testmt",
    "description": "Dummy Child Service",
    "servicePrice": 20.0,
    "invoiceStatus": "Pre-billed",
    "lastRenewedOn": 1414393200000,
    "renewalDate": 1418108400000,
    "serviceDiscount": 8,
    "serviceDiscountType": "AMOUNT",
    "serviceDiscountedPrice": 10,
    "serviceBillingPeriod": "Monthly"
  }
],
"servicePlanList": [
  {
    "name": "DATACENTER",
    "description": "Phoenix",
    "servicePrice": 0,
    "invoiceStatus": null,
    "lastRenewedOn": null,
    "renewalDate": null,
    "serviceDiscount": 0,
    "serviceDiscountType": "PERCENTAGE",
    "serviceDiscountedPrice": 0,
    "serviceBillingPeriod": null
  },
  {
    "name": "HARDWARE FIREWALL",
    "description": "Dell SonicWALL 215",
    "servicePrice": 0,
    "invoiceStatus": null,
    "lastRenewedOn": null,
    "renewalDate": null,
    "serviceDiscount": 0,
    "serviceDiscountType": "PERCENTAGE",
    "serviceDiscountedPrice": 0,
    "serviceBillingPeriod": null
  }
]
}

```

Modify Bare Metal Firewall

HTTP Verb	PUT
URI Template	/baremetalfirewall/{firewallID}
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for bare metal firewalls found in their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/baremetalfirewall/542 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP MBSGE4XjJBXa18d/FBaT5N7onODL2UYNwuKE3qZZmd4=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "newName": "test bare metal firewall",
  "newDescription": "test bare metal firewall full description"
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:24:35 GMT

{
  "name": "test bare metal firewall",
  "description": "test bare metal firewall full description",
  "nodeResource": {
    "resourceURL": "/node/1"
  },
  "accountResource": {
    "resourceURL": "/account/10"
  },
  "privateIps": [
    "172.23.0.27"
  ],
}
```

(Continued)

```

"publicIps":[
  "66.85.161.218",
  "66.85.161.219",
  "66.85.161.220",
  "66.85.161.221",
  "66.85.161.222"
],

"rootPassword":"pass",
"userAccount":"uname",
"userAccountPassword":"password",
"serviceName":"Dummy Service",
"servicePrice":0.0,
"invoiceStatus":"Unbilled",
"lastRenewedOn":1416812400000,
"renewalDate":1419404400000,
"serviceDiscount": 50,
"serviceDiscountType": "PERCENTAGE",
"serviceDiscountedPrice": 119,
"serviceBillingPeriod": "Monthly",
"childServices":[
  {
    "name":"testmt",
    "description":"Dummy Child Service",
    "servicePrice":20.0,
    "invoiceStatus":"Pre-billed",
    "lastRenewedOn":1414393200000,
    "renewalDate":1418108400000,
    "serviceDiscount": 8,
    "serviceDiscountType": "AMOUNT",
    "serviceDiscountedPrice": 10,
    "serviceBillingPeriod": "Monthly"
  }
],
"servicePlanList": [
  {
    "name": "DATACENTER",
    "description": "Phoenix",
    "servicePrice": 0,
    "invoiceStatus": null,
    "lastRenewedOn": null,
    "renewalDate": null,
    "serviceDiscount": 0,
    "serviceDiscountType": "PERCENTAGE",
    "serviceDiscountedPrice": 0,
    "serviceBillingPeriod": null
  },
  {
    "name": "HARDWARE FIREWALL",
    "description": "Dell SonicWALL 215",
    "servicePrice": 0,
    "invoiceStatus": null,
    "lastRenewedOn": null,
    "renewalDate": null,
    "serviceDiscount": 0,
    "serviceDiscountType": "PERCENTAGE",
    "serviceDiscountedPrice": 0,
    "serviceBillingPeriod": null
  }
]
}

```

Get Bare Metal Firewall Assignment

HTTP Verb	GET
URI Template	/baremetalfirewall/{firewallID}/assignment
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/baremetalfirewall/95/assignment HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

{
  "resourceURL": "/baremetalfirewall/86/assignment/account/1"
}
```

Get Bare Metal Firewall Assignment Details

HTTP Verb	GET
URI Template	/baremetalfirewall/{firewallID}/assignment/account/{accID}
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/baremetalfirewall/95/assignment/account/1 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

{
  "firewallId": " 95",
  "assignedAccountId": "1"
}
```


Assign Bare Metal Firewall

HTTP Verb	POST
URI Template	/baremetalfirewall/{firewallID}/assignment/account/{accID}
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/baremetalfirewall/95/assignment/account/1 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

{
  "firewallId": "95",
  "assignedAccountId": "1"
}
```

Remove Bare Metal Firewall Assignment

HTTP Verb	DELETE
URI Template	/baremetalfirewall/{firewallID}/assignment/account/{accID}
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
DELETE /pncp-external-api-rest/baremetalfirewall/95/assignment/account/1 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp kp4ln0VWzuXkSYpvBNb2xOs7GPUPqn1E9CoQohYo2vM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 11:57:27 GMT

{
  "firewallId": "95",
  "assignedAccountId": null
}
```

Get Bare Metal Firewall Tags

HTTP Verb	GET
URI Template	/account/{accID}/baremetalfirewall/{firewallID}/tags
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for bare metal firewalls found in their own account as well as any other account they own. End-clients can invoke this for bare metal devices in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/ account/1/baremetalfirewall/24/tags HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 7JG6Bdp6pionVXbvA0h1ZQ0yjmoSw3gDQZLFWzVBOXM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:48:03 GMT
[ {
  "resourceURL": "/account/1/tag/erwgc"
},
{
  "resourceURL": "/account/1/tag/test"
}]
```

Add Tag to Bare Metal Firewall

HTTP Verb	PUT
URI Template	/account/{accID}/baremetalfirewall/{firewallID}/tags/{tagName}
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for bare metal devices found in their own account as well as any other account they own. End-clients can invoke this for bare metal devices in their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/ account/1/baremetalfirewall/24/tags/tagName HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 7JG6Bdp6pionVXbvA0h1ZQ0yjmoSw3gDQZLFWzVBOXM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:48:03 GMT
{
  "resourceURL": "/account/1/baremetalfirewall/24/tags"
}
```

Remove Tag from Bare Metal Firewall

HTTP Verb	DELETE
URI Template	/account/{accID}/baremetalfirewall/{firewallID}/tags/{tagName}
MIME Type	application/vnd.pncp.v.4.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for bare metal devices found in their own account as well as any other account they own. End-clients can invoke this for bare metal devices in their account only.
Response Mode	Synchronous.

Sample Request

```
DELETE /pncp-external-api-rest/ account/1/baremetalfirewall/24/tags/tagName HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 7JG6Bdp6pionVXbvA0hlZQ0yjmoSw3gDQZLFWzVBOXM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:48:03 GMT
{
  "resourceURL": "/account/1/baremetalfirewall/24/tags"
}
```

Tags and Multi Select APIs

This section lists API Calls used for actions on Tags and Multi Selected Devices including List, Create, Delete Tags and Clone, Export, Delete VMs.

Get List of Tags

HTTP Verb	GET
URI Template	/account/{accID}/tag
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/ account/1/tag HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:36:20 GMT

[
  {
    "resourceURL": "/account/1/tag/tagName1"
  },
  {
    "resourceURL": "/account/1/tag/tagName2"
  }
]
```

Create Tag

HTTP Verb	POST
URI Template	/account/{accID}/tag/{tagName}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/ account/1/tag/tagName1 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:36:20 GMT

{
  "resourceURL": "/account/1/tag/tagName1"
}
```

Modify Tag Name

HTTP Verb	PUT
URI Template	/account/{accID}/tag/{tagName}?newName={new tag name}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/ account/1/tag/tagName1?newName=tagName5 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:36:20 GMT

{
  "resourceURL": "/account/1/tag/tagName5"
}
```


Delete Tag

HTTP Verb	DELETE
URI Template	/account/{accID}/tag/{tagName}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
DELETE /pncp-external-api-rest/ account/1/tag/tagName1 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:36:20 GMT

true
```

Get Tagged Devices

HTTP Verb	GET
URI Template	/account/{accID}/tag/{tagName}/devices
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/ account/1/tag/tagName1/devices HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:36:20 GMT

[
  {
    "resourceURL": "/virtualmachine/24"
  },
  {
    "resourceURL": "/baremetaldevice/86"
  },
  {
    "resourceURL": "/baremetalfirewall/95"
  }
]
```

Multi Select: Change Power State

HTTP Verb	POST
URI Template	/power_devices?state={on off reboot}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Asynchronous.

Sample Request

```
POST /pncp-external-api-rest/ power_devices?state=on HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP OTQ1NzE4ZmFkNDUwYWI5odz0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "deviceResources": [
    {
      "resourceURL": "/virtualmachine/24"
    },
    {
      "resourceURL": "/baremetaldevice/86"
    }
  ]
}
```

Sample Response

```

HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 26 Oct 2012 15:50:29 GMT

[
  {
    "deviceResource":{
      "resourceURL":"/virtualmachine/24"
    },
    "taskResource":{
      "resourceURL":"/task/3d038901-f103-4eda-bc17-8f890aa4ca24"
    }
  },
  {
    "deviceResource":{
      "resourceURL":"/baremetaldevice/86"
    },
    "taskResource":{
      "resourceURL":"/task/ea30249d-ddaa-4671-b0b1-5b472269ec8d"
    }
  }
]

```

Multi Select: Clone VMs

HTTP Verb	POST
URI Template	/clone_virtualmachines
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Asynchronous.

Sample Request

```

POST /pncp-external-api-rest/clone_virtualmachines HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP OTQ1NzE4ZmFkNDUwYWI5odz0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "deviceResources":[
    {
      "resourceURL":"/virtualmachine/24"
    },
    {
      "resourceURL":"/ virtualmachine/63"
    }
  ]
}

```

Sample Response

```

HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 26 Oct 2012 15:50:29 GMT

[
  {
    "deviceResource":{
      "resourceURL":"/virtualmachine/24"
    },
    "taskResource":{
      "resourceURL":"/task/3d038901-f103-4eda-bc17-8f890aa4ca24"
    }
  },
  {
    "deviceResource":{
      "resourceURL":"/virtualmachine/63"
    },
    "taskResource":{
      "resourceURL":"/task/ea30249d-ddaa-4671-b0b1-5b472269ec8d"
    }
  }
]

```

Multi Select: Export VMs

HTTP Verb	POST
URI Template	/export_virtualmachines?powerState={on off}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Asynchronous.

Sample Request

```
POST /pncp-external-api-rest/export_virtualmachines?powerState=on HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP OTQ1NzE4ZmFkNDUwYWI5odz0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "deviceResources": [
    {
      "resourceURL": "/virtualmachine/24"
    },
    {
      "resourceURL": "/ virtualmachine/63"
    }
  ]
}
```

Sample Response

```

HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 26 Oct 2012 15:50:29 GMT

[
  {
    "deviceResource": {
      "resourceURL": "/virtualmachine/24"
    },
    "taskResource": {
      "resourceURL": "/task/3d038901-f103-4eda-bc17-8f890aa4ca24"
    }
  },
  {
    "deviceResource": {
      "resourceURL": "/virtualmachine/63"
    },
    "taskResource": {
      "resourceURL": "/task/ea30249d-ddaa-4671-b0b1-5b472269ec8d"
    }
  }
]

```

Multi Select: Delete VMs

HTTP Verb	POST
URI Template	/delete_virtualmachines?releaseIPs={true false}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Asynchronous.

Sample Request

```

POST /pncp-external-api-rest/delete_virtualmachines?releaseIPs=true HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP OTQ1NzE4ZmFkNDUwYWI5odz0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "deviceResources":[
    {
      "resourceURL":"/virtualmachine/24"
    },
    {
      "resourceURL":"/ virtualmachine/63"
    }
  ]
}

```

Sample Response

```

HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 26 Oct 2012 15:50:29 GMT

[
  {
    "deviceResource":{
      "resourceURL":"/virtualmachine/24"
    },
    "taskResource":{
      "resourceURL":"/task/3d038901-f103-4eda-bc17-8f890aa4ca24"
    }
  },
  {
    "deviceResource":{
      "resourceURL":"/virtualmachine/63"
    },
    "taskResource":{
      "resourceURL":"/task/ea30249d-ddaa-4671-b0b1-5b472269ec8d"
    }
  }
]

```


IP Management APIs for Virtual Machines

The following API Calls are used to manage IP Address on your Virtual Machines, including Listing, Assigning, and Releasing.

Get List of Public IPs on Virtual Machine

HTTP Verb	GET
URI Template	/virtualmachine/{vmID}/publicip
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked by	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/virtualmachine/545/publicip HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP EWbAKDgMGtzzxuAoPRIOQWkX8s0/qwftE/nCzxnglVUY=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:26:32 GMT

[
  {
    "resourceURL": "/virtualmachine/545/publicip/172.27.0.55"
  },
  {
    "resourceURL": "/virtualmachine/545/publicip/172.27.0.56"
  }
]
```

Get List of Private IPs on Virtual Machine

HTTP Verb	GET
URI Template	/virtualmachine/{vmID}/privateip
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/virtualmachine/545/privateip HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCPEWbAKDgMGtzxuAoPRIOQWkX8s0/qwftE/nCzxnglVUY=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:26:32 GMT

[
  {
    "resourceURL": "/virtualmachine/545/privateip/10.0.0.55"
  },
  {
    "resourceURL": "/virtualmachine/545/privateip/10.0.0.56"
  }
]
```

Get Details of Public IP on Virtual Machine

HTTP Verb	GET
URI Template	/virtualmachine/{vmID}/publicip/{ipAddress}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/virtualmachine/545/publicip/172.27.0.56
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP VdBZN6fCTKGH6cqLFEM4Y07fr/JtkRVWxsSoQHSUYqA=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:32:41 GMT
```

```
{
  "ipAddress": "172.27.0.56",
  "ipType": "ASSIGNED_TO_VM",
  "reserved": false,
  "assignedTo": [
    {
      "resourceURL": "/virtualmachine/545"
    }
  ],
  "privateIpMapping": "10.0.0.56",
  "nodeResource": {
    "resourceURL": "/node/2"
  },
  "accountResource": {
    "resourceURL": "/account/1785"
  }
}
```

Get Details of Private IP on Virtual Machine

HTTP Verb	GET
URI Template	/virtualmachine/{vmID}/privateip/{ipAddress}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/virtualmachine/545/privateip/10.0.0.56 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP VdBN6fCTKGH6cqLFeM4Y07fr/JtkRVWxsSoQHSUYqA=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:32:41 GMT
```

```
{
  "ipAddress": "10.0.0.56",
  "assignedTo": [
    {
      "resourceURL": "/virtualmachine/545"
    }
  ],
  "publicIpMappings": [
    "172.27.0.56",
    "172.27.0.57"
  ],
  "nodeResource": {
    "resourceURL": "/node/2"
  },
  "accountResource": {
    "resourceURL": "/account/1785"
  }
}
```

Assign Public IP to Virtual Machine

HTTP Verb	POST
URI Template	/virtualmachine/{vmID}/publicip
MIME Type	application/vnd.pncp.v1.0+json
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
POST /pncp-external-api-rest/virtualmachine/545/publicip HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP nfYDOJ+A5DNIInIsC3RczNK1D8s+S0O5Bt5HoVSzoiGg=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 23
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "ipFromReserved": "172.27.0.55",
  "privateIpMapping": "10.0.0.57"
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:21:30 GMT
{
  "resourceURL": "/task/b9550509-413e-4446-9199-8a0ff6113027"
}
```

Field Info

Field Name	Required
ipFromReserved	A new IP will be assigned if set to null
privateIpMapping	Private ip mappings are only supported for nodes with custom network configurations. Should this field be set for nodes with a different network configuration, a 405 "Method not allowed" error will be returned.

Assign Private IP to Virtual Machine

HTTP Verb	POST
URI Template	/virtualmachine/{vmID}/publicip
MIME Type	application/vnd.pncp.v1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
POST /pncp-external-api-rest/virtualmachine/545/privateip HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp nfYDOJ+A5DNInlsC3RczNK1D8s+S0O5Bt5HoVSzoiGg=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 23
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "ipAddress": "10.0.0.60",
  "publicIpMappings": [
    "172.27.0.56",
    "172.27.0.57"
  ]
}
```


Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:21:30 GMT
{
  "resourceURL": "/task/b9550509-413e-4446-9199-8a0ff6113027"
}
```

Notes

- This call is only allowed for virtual machines residing in nodes with custom network configurations. Should this call be used within a different network configuration, a 405 “Method not allowed” error will be returned.

Field Info

Field Name	Required
ipFromReserved	
publicIpMappings	The private IP will not be mapped to any public IPs if this field is set to null.

Modify Public IP on Virtual Machine

HTTP Verb	PUT
URI Template	/virtualmachine/{vmID}/publicip/{ipAddress}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/virtualmachine/545/publicip/172.27.0.55
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP nfYDOJ+A5DNInlsC3RczNKlD8s+S005Bt5HoVSzoiGg=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 23
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

```
{
  "privateIpMapping": "10.0.0.58"
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:21:30 GMT
{
  "resourceURL": "/task/b9550509-413e-4446-9199-8a0ff6113027"
}
```

Notes

- This call is only allowed for virtual machines residing in nodes with custom network configurations. Should this call be used within a different network configuration, a 405 “Method not allowed” error will be returned.

Field Info

Field Name	Required
privateIpMapping	The public IP will not be mapped to a private IP if this field is set to null.

Modify Private IP on Virtual Machine

HTTP Verb	PUT
URI Template	/virtualmachine/{vmID}/privateip/{ipAddress}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/virtualmachine/545/privateip/10.0.0.56 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP nfYDOJ+A5DNInlsC3RczNKlD8s+S005Bt5HoVSzoiGg=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 23
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "publicIpMappings":[
    "172.27.0.56",
    "172.27.0.23"
  ]
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:21:30 GMT
{
  "resourceURL":"/task/b9550509-413e-4446-9199-8a0ff6113027"
}
```

Notes

- This call is only allowed for virtual machines residing in nodes with custom network configurations. Should this call be used within a different network configuration, a 405 “Method not allowed” error will be returned.

Field Info

Field Name	Required
publicIpMappings	The public IP will not be mapped to a private IP if this field is set to null.

Release Public IP from Virtual Machine

HTTP Verb	DELETE
URI Template	/virtualmachine/{vmID}/publicip/{ipAddress}?moveToReservedList={true false}
MIME Type	application/vnd.pncp.v1.0+json
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous

Sample Request

```
DELETE /pncp-external-api-
rest/virtualmachine/545/publicip/172.27.0.55?moveToReservedList=false
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP UebpPn6yveGoxq7xmUKAi9rrKWNH2zr+jid8G36cVSw=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:43:41 GMT

{
  "resourceURL": "/task/1d43d353-b532-4d59-881e-9f307e2b2b69"
}
```

Release Private IP from Virtual Machine

HTTP Verb	DELETE
URI Template	/virtualmachine/{vmID}/privateip/{ipAddress}
MIME Type	application/vnd.pncp.v1.0+json
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous

Sample Request

```
DELETE /pncp-external-api-rest/virtualmachine/545/privateip/10.0.0.55
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCPUebpPn6yveGoxq7xmUKAi9rrKWNH2zr+jid8G36cVSw=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:43:41 GMT

{
  "resourceURL": "/task/1d43d353-b532-4d59-881e-9f307e2b2b69"
}
```

Notes

- This call is only allowed for virtual machines residing in nodes with custom network configurations. Should this call be used within a different network configuration, a 405 “Method not allowed” error will be returned.

Load Balancer APIs

This section details API Calls used for performing actions on Load Balancers including Listing, Creating, Detailing, Modifying, and Deleting.

Get List of Load Balancer Pools by Account for All Nodes

HTTP Verb	GET
URI Template	/account/{accID}/loadbalancerpool
MIME Type	application/vnd.pncp.v1.0+json
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/loadbalancerpool HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:36:20 GMT

[
  {
    "resourceURL": "/loadbalancerpool/70"
  },
  {
    "resourceURL": "/loadbalancerpool/71"
  }
]
```

Get List of Load Balancer Pools by Node

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}/loadbalancerpool
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/node/1/loadbalancerpool HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:36:20 GMT

[
  {
    "resourceURL": "/loadbalancerpool/70"
  },
  {
    "resourceURL": "/loadbalancerpool/71"
  }
]
```

Get Load Balancer Pool Details

HTTP Verb	GET
URI Template	/loadbalancerpool/{lbid}
MIME Type	application/vnd.pncp.v3.0+json
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/loadbalancerpool/70 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp mPz1LCdNPeQF4zVvg2+V0YKocktRgVz9mKByNwB2HTU=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:28:51 GMT

{
  "poolName": "testLBcbc471",
  "loadBalancerIP": "172.27.1.135",
  "loadBalancerPort": 8080,
  "loadBalancerProtocol": "TCP",
  "method": "ROUND_ROBIN",
  "status": "OFFLINE",
  "gatewayIcmpHealthCheckEnabled": true,
  "nodeResource": {
    "resourceURL": "/node/2"
  },
  "accountResource": {
    "resourceURL": "/account/1785"
  },
  "nodes": [
    {
      "active": true,
      "nodeIP": "10.0.0.100",
      "nodePort": 123,
      "status": "ALERT",
      "failingHealthMonitors": [
        "http_monitor"
      ]
    }
  ]
}
```

Notes

- The field **gatewayLcmpHealthCheckEnabled** will only be visible while the check is enabled (i.e. the field returns 'true'). Once this health check has been disabled the field will no longer be returned.

Create Load Balancer Pool

HTTP Verb	POST
URI Template	/account/{accID}/node/{nodeID}/loadbalancerpool
MIME Type	application/vnd.pncp.v3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/account/88/node/1/loadbalancerpool HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP Il1l2Zoi8p7bJiU7E8FHIUCvfC4NysTX6fazjvm5S0k=
Content-Type: application/vnd.pncp.v.3.0+json
Content-Length: 190
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "poolName": "testLBcbc471",
  "loadBalancerProtocol": "TCP",
  "loadBalancerIP": null,
  "loadBalancerPort": 8080,
  "method": "ROUND_ROBIN",
  "nodes": [
    {
      "nodeIP": "10.0.0.100",
      "active": true,
      "nodePort": 123
    }
  ]
}
```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v3.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:19:07 GMT

{
  "resourceURL":"/loadbalancerpool/70"
}

```

Field Info

Field Name	Required
loadBalancerIP	A new IP will be assigned if set to null.
loadBalancerPort	✓
loadBalancerProtocol	✓
poolName	✓
method	✓
nodes	Default: [empty list]
[nodes].nodeIP	✓
[nodes].active	✓
[nodes].nodePort	✓

Modify Load Balancer Pool

HTTP Verb	PUT
URI Template	/loadbalancerpool/{lbid}
MIME Type	application/vnd.pncp.v3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/loadbalancerpool/70 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 6ra5alp4jVhHG8RoC8wMKip7RJM+W0cKOilAbJV7YSk=
Content-Type: application/vnd.pncp.v.3.0+json
Content-Length: 217
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "loadBalancerIP ":null,
  "loadBalancerPort":8080,
  "loadBalancerProtocol":"TCP",
  "method":"ROUND_ROBIN",
  "gatewayIcmpHealthCheckEnabled":false,
  "nodes":[
    {
      "nodeIP":"10.0.0.100",
      "active":true,
      "nodePort":123
    },
    {
      "nodeIP":"10.0.0.101",
      "active":true,
      "nodePort":123
    }
  ]
}
```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:32:21 GMT

```

```

{
  "poolName": "testLBcbc471",
  "loadBalancerIP": "172.27.1.135",
  "loadBalancerPort": 8080,
  "loadBalancerProtocol": "TCP",
  "method": "ROUND_ROBIN",
  "nodeResource": {
    "resourceURL": "/node/2"
  },
  "accountResource": {
    "resourceURL": "/account/1785"
  },
  "nodes": [
    {
      "nodeIP": "10.0.0.100",
      "active": true,
      "nodePort": 123
    },
    {
      "nodeIP": "10.0.0.101",
      "active": true,
      "nodePort": 123
    }
  ]
}

```

Field Info

Field Name	Required
loadBalancerIP	
loadBalancerPort	✓
loadBalancerProtocol	✓
method	✓
nodes	Default: [empty list]
[nodes].nodeIP	✓
[nodes].active	✓
[nodes].nodePort	✓
gatewayIcmpHealthCheckEnabled	

Delete Load Balancer Pool

HTTP Verb	DELETE
URI Template	/loadbalancerpool/{lbid}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
DELETE /pncp-external-api-rest/loadbalancerpool/70 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP J7VdPeTO0JIvv9NYMJyHGOW0534Yx0ISZ+JRoSukraU=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:32:21 GMT
```

```
true
```

Health Monitor APIs

This section details API Calls used for performing actions on Health Monitors including Listing and Creating.

Create HTTP Monitor

HTTP Verb	POST
URI Template	/account/{accID}/node/{nodeID}/healthmonitor
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/ account/5/node/1/healthmonitor HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "name": "testMonitor98325",
  "type": "HTTP",
  "intervalInSeconds": "600",
  "timeoutInSeconds": 10,
  "sendString": "GET /\r\n",
  "receiveString": "200\sOK",
  "receiveDisableString": "500",
  "username": null,
  "password": null
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:19:07 GMT

{
  "resourceURL": "/healthmonitor/64"
}
```

Field Info

Field Name	Required
name	✓
type	✓
intervalInSeconds	✓
timeoutInSeconds	✓
sendString	✓
receiveString	✓
username	✓
password	✓

Create HTTPS Monitor

HTTP Verb	POST
URI Template	/account/{accID}/node/{nodeID}/healthmonitor
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/ account/5/node/1/healthmonitor HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

```
{
  "name": "testMonitor98325",
  "type": "HTTPS",
  "intervalInSeconds": "600",
  "timeoutInSeconds": 10,
  "upIntervalInSeconds": 0,
  "timeUntilUpInSeconds": 0,
  "sendString": "GET /\r\n",
  "receiveString": "200\sOK",
  "receiveDisableString": "500",
  "username": null,
  "password": null,
  "cipherList": null,
  "compatibility": true
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:19:07 GMT
```

```
{
  "resourceURL": "/healthmonitor/64"
}
```

Field Info

Field Name	Required
name	✓
type	✓
intervalInSeconds	✓
timeoutInSeconds	✓
upIntervalInSeconds	
timeUntilUpInSeconds	
sendString	
receiveString	
receiveDisableString	
username	
password	
cipherList	
compatibility	

Create TCP Monitor

HTTP Verb	POST
URI Template	/account/{accID}/node/{nodeID}/healthmonitor
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/ account/5/node/1/healthmonitor HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "name": "testMonitorXAPI1234567",
  "type": "TCP",
  "intervalInSeconds": "600",
  "timeoutInSeconds": 10,
  "sendString": "GET /\r\n",
  "receiveString": "200\sOK"
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:19:07 GMT

{
  "resourceURL": "/healthmonitor/3174"
}
```


Field Info

Field Name	Required
name	✓
type	✓
intervalInSeconds	✓
timeoutInSeconds	✓
sendString	
receiveString	

Get List of Health Monitors (By Account and Node)

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}/healthmonitor
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/5/node/1/healthmonitor HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 28 May 2015 14:36:20 GMT
```

```
[
  {
    "resourceURL": "/healthmonitor/70"
  },
  {
    "resourceURL": "/healthmonitor/71"
  },
  {
    "resourceURL": "/healthmonitor/72"
  }
]
```

Get HTTP Monitor Details

HTTP Verb	GET
URI Template	/healthmonitor/{monitorID}
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /healthmonitor/75 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 28 May 2015 14:36:20 GMT
```

```
{
  "name": "testMonitor98325",
  "type": "HTTP",
  "intervalInSeconds": "600",
  "timeoutInSeconds": 10,
  "sendString": "GET /\r\n",
  "receiveString": "200\sOK",
  "receiveDisableString": "500"
  "username": "test_user",
  "passwordSet": true,
  "accountResource": {
    "resourceURL": "/account/70"
  },
  "nodeResource": {
    "resourceURL": "/node/71"
  },
}
```

Get HTTPS Monitor Details

HTTP Verb	GET
URI Template	/healthmonitor/{monitorID}
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /healthmonitor/75 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 28 May 2015 14:36:20 GMT
```

```
{
  "name": "testMonitor98325",
  "type": "HTTPS",
  "intervalInSeconds": "600",
  "timeoutInSeconds": 10,
  "upIntervalInSeconds": 10,
  "timeUntilUpInSeconds": 5,
  "sendString": "GET /\r\n",
  "receiveString": "200\sOK",
  "receiveDisableString": "500"
  "username": "test_user",
  "passwordSet": true,
  "cipherList": "chiperMD5",
  "compatibility": true,
  "accountResource": {
    "resourceURL": "/account/70"
  },
  "nodeResource": {
    "resourceURL": "/node/71"
  },
}
```

Get TCP Monitor Details

HTTP Verb	GET
URI Template	/healthmonitor/{monitorID}
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /healthmonitor/75 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 28 May 2015 14:36:20 GMT
```

```
{
  "name": "testMonitor98325",
  "type": "TCP",
  "intervalInSeconds": "600",
  "timeoutInSeconds": 10,
  "sendString": "GET /\r\n",
  "receiveString": "200\sOK",
  "accountResource": {
    "resourceURL": "/account/70"
  },
  "nodeResource": {
    "resourceURL": "/node/71"
  },
}
```

Modify HTTP Monitor

HTTP Verb	PUT
URI Template	/healthmonitor/{monitorID}
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /healthmonitor/2489 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Type: application/vnd.pncp.v.3.0+json
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "type": "HTTP",
  "intervalInSeconds": "700",
  "timeoutInSeconds": 50,
  "sendString": "GET /\r\n",
  "receiveString": "200\\sOK",
  "receiveDisableString": "500",
  "username": "test",
  "password": "letmein"
}
```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Wed, 24 June 2015 10:12:20 GMT

{
  "name": " testMonitor98325",
  "intervalInSeconds": 700,
  "timeoutInSeconds": 50,
  "accountResource": {
    "resourceURL": "/account/1503"
  },
  "nodeResource": {
    "resourceURL": "/node/10"
  },
  "sendString": "GET /\r\n",
  "receiveString": "200\sOK",
  "username": "test",
  "password": "letmein",
  "receiveDisableString": "500",
  "type": "HTTP"
}

```

Field Info

Field Name	Required
type	✓
intervalInSeconds	✓
timeoutInSeconds	✓
sendString	
receiveString	
receiveDisableString	
username	
password	

Modify HTTPS Monitor

HTTP Verb	PUT
URI Template	/healthmonitor/{monitorID}
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /healthmonitor/2499 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Type: application/vnd.pncp.v.3.0+json
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

```
{
  "intervalInSeconds": 600,
  "timeoutInSeconds": 10,
  "timeUntilUpInSeconds": 0,
  "upIntervalInSeconds": 0,
  "sendString": "GET /\r\n",
  "receiveString": "200\\sOK",
  "username": "test",
  "password": "letmein",
  "receiveDisableString": "500",
  "cipherList": null,
  "compatibility": true,
  "type": "HTTPS"
}
```


Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Wed, 24 June 2015 10:12:20 GMT

{
  "name": "testHTTPSMonitor240620152",
  "intervalInSeconds": 600,
  "timeoutInSeconds": 10,
  "timeUntilUpInSeconds": 0,
  "upIntervalInSeconds": 0,
  "accountResource": {
    "resourceURL": "/account/1503"
  },
  "nodeResource": {
    "resourceURL": "/node/10"
  },
  "sendString": "GET /\r\n",
  "receiveString": "200\\sOK",
  "username": "test",
  "password": "letmein",
  "receiveDisableString": "500",
  "cipherList": null,
  "compatibility": true,
  "type": "HTTPS"
}

```

Field Info

Field Name	Required
type	✓
intervalInSeconds	✓
timeoutInSeconds	✓
upIntervalInSeconds	✓
timeUntilUpInSeconds	✓
sendString	
receiveString	
receiveDisableString	
username	
password	
cipherList	
compatibility	✓

Modify TCP Monitor

HTTP Verb	PUT
URI Template	/healthmonitor/{monitorID}
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /healthmonitor/2489 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Type: application/vnd.pncp.v.3.0+json
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "type": "TCP",
  "intervalInSeconds": "700",
  "timeoutInSeconds": 50,
  "sendString": "GET /\r\n",
  "receiveString": "200\sOK",
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Wed, 24 June 2015 10:12:20 GMT

{
  "name": "testMonitor98325",
  "intervalInSeconds": 700,
  "timeoutInSeconds": 50,
  "accountResource": {
    "resourceURL": "/account/1503"
  },
  "nodeResource": {
    "resourceURL": "/node/10"
  },
  "sendString": "GET /\r\n",
  "receiveString": "200\sOK",
  "type": "TCP"
}
```

Field Info

Field Name	Required
type	✓
intervalInSeconds	✓
timeoutInSeconds	✓
sendString	
receiveString	

Delete Monitor

HTTP Verb	DELETE
URI Template	/healthmonitor/{monitorID}
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
DELETE /healthmonitor/75 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 28 May 2015 14:36:20 GMT

true
```

Health Monitor Management APIs for Load Balancers

The following API Calls are used to manage Health Monitors on your Load Balancers, including Listing, Assigning, and Releasing.

Update Load Balancer Monitor Assignments

HTTP Verb	POST
URI Template	/loadbalancerpool/{lbID}/healthmonitor
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/ loadbalancerpool/70/healthmonitor HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDovjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "monitorsToAssign": [
    {
      "resourceURL": "/healthmonitor/70"
    },
    {
      "resourceURL": "/healthmonitor/71"
    }
  ],
  "monitorsToUnassign": [
    {
      "resourceURL": "/healthmonitor/72"
    }
  ]
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:19:07 GMT

{
  "resourceURL": "/loadbalancerpool/70/healthmonitor/"
}
```

Get List of Assigned Monitors on Load Balancer

HTTP Verb	GET
URI Template	/loadbalancerpool/{lbid}/healthmonitor
MIME Type	application/vnd.pncp.v.3.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/ loadbalancerpool/70/healthmonitor HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDOvjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.3.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:19:07 GMT

[
  {
    "resourceURL": "/healthmonitor/70"
  },
  {
    "resourceURL": "/healthmonitor/71"
  },
  {
    "resourceURL": "/healthmonitor/72"
  }
]
```

Pricing Profile APIs

This section details API Calls used to List, Detail, Create, Set and Define Default, Assign, and Add Nodes to/for Pricing Profiles.

Get Assigned Pricing Profile

HTTP Verb	GET
URI Template	/account/{accID}/assignedpricingprofile/virtual
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/4138/assignedpricingprofile/virtual
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP dmK5SkIueWRrTElUL0FGR05RV2xoZkJZVGRsSzVRND0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 01 Mar 2012 17:06:15 GMT

{
  "pricingProfileName": "PNAP PP 2",
  "assignmentDate": "2012/02/29 10:43:00",
  "endDate": null,

  "nodePricingDetails": [
    {
      "nodeResource": {
        "resourceURL": "/node/1"
      },
      "pricePoints": [
        {
          "description": "1 VM on, 2 vCPU, 14 RAM [GIGABYTE PER HOUR]",
          "pricePointResource": {
            "resourceURL": "/pricepoint/0x1x2x2x3x14"
          },
          "price": 1.7
        },
        {
          "description": "1 VM on, 1 vCPU, 512 RAM [MEGABYTE PER
HOUR]",
          "pricePointResource": {
            "resourceURL": "/pricepoint/0x1x2x1x3x512"
          },
          "price": 0.1
        },
        {
          "description": "1 VM on, 8 vCPU, 40 RAM [GIGABYTE PER HOUR]",
          "pricePointResource": {
            "resourceURL": "/pricepoint/0x1x2x8x3x40"
          },
          "price": 5.4
        },
        ...
      ]
    }
  ]
}

```

(Continued...)

```

        {
            "description": "1 VM on, 8 vCPU, 24 RAM [GIGABYTE PER HOUR]",
            "pricePointResource": {
                "resourceURL": "/pricepoint/0x1x2x8x3x24"
            },
            "price": 3.8
        },
        {
            "description": "1 VM on, 2 vCPU, 2 RAM [GIGABYTE PER HOUR]",
            "pricePointResource": {
                "resourceURL": "/pricepoint/0x1x2x2x3x2"
            },
            "price": 0.5
        },
        {
            "description": "1 VM on, 1 vCPU, 16 RAM [GIGABYTE PER HOUR]",
            "pricePointResource": {
                "resourceURL": "/pricepoint/0x1x2x1x3x16"
            },
            "price": 1.7
        },
        {
            "description": "1 VM on, 8 vCPU, 16 RAM [GIGABYTE PER HOUR]",
            "pricePointResource": {
                "resourceURL": "/pricepoint/0x1x2x8x3x16"
            },
            "price": 3.0
        }
    ]
}

```


Get List of Pricing Profiles

HTTP Verb	GET
URI Template	/account/{accID}/pricingprofile/virtual
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/4138/pricingprofile/virtual HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP NjRmNmNjZWl4QksxT3ExYU1XVWVSTXdwWp5SEl2Mk84Z21lZz0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 01 Mar 2012 17:06:15 GMT

[
  {
    "pricingProfileResource": {
      "resourceURL": "/pricingprofile/43/virtual"
    },
    "isDefaultForResellers": false,
    "isDefaultForEndClients": false
  },
  {
    "pricingProfileResource": {
      "resourceURL": "/pricingprofile/46/virtual"
    },
    "isDefaultForResellers": false,
    "isDefaultForEndClients": false
  }
]
```

Get List of Accounts with Assigned Pricing Profile

HTTP Verb	GET
URI Template	/pricingprofile/{ppID}/virtual/assignedaccounts
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for pricing profiles created by their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/pricingprofile/43/virtual/assignedaccounts
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp vaOkndZqyonGBBMebHAfo+AiFhnlfxaGu0B5di9/KAo=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 10:14:00 GMT
```

```
[
  {
    "resourceURL": "/account/96"
  },
  {
    "resourceURL": "/account/97"
  }
]
```

Get Pricing Profile Details

HTTP Verb	GET
URI Template	/pricingprofile /{ppID}/virtual
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for pricing profiles created by their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/pricingprofile/44/virtual HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP dRMEintBR/z0CfDb5PZfp4iSDhxSFuufJAt3h6z3DmA=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

Note: The JSON body of the example response has been trimmed to improve readability.

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 10:13:48 GMT

{
  "pricingProfileName": "TestPP440013bf",
  "isDefaultForEndclients": false,
  "isDefaultForResellers": false,
  "owningAccountResource": {
    "resourceURL": "/account/4138"
  },
  "nodePricingDetails": [
    {
      "nodeResource": {
        "resourceURL": "/node/1"
      },
      "pricePoints": [
        {
          "description": "1 VM on, 4 vCPU, 12 RAM [GIGABYTE PER HOUR]",
          "pricePointResource": {
            "resourceURL": "/pricepoint/0x1x2x4x3x12"
          }
        }
      ]
    }
  ]
}
```

(Continued)

```

        "price":2.4
      },
      {
        "description":"1 VM on, 1 vCPU, 3 RAM [GIGABYTE PER HOUR]",
        "pricePointResource":{
          "resourceURL":"/pricepoint/0x1x2x1x3x3"
        },
        "price":1.4
      },
      {
        "description":"1 VM on, 8 vCPU, 64 RAM [GIGABYTE PER HOUR]",
        "pricePointResource":{
          "resourceURL":"/pricepoint/0x1x2x8x3x64"
        },
        "price":8.8
      },
      ...
      {
        "description":"1 VM on, 1 vCPU, 8 RAM [GIGABYTE PER HOUR]",
        "pricePointResource":{
          "resourceURL":"/pricepoint/0x1x2x1x3x8"
        },
        "price":1.9
      },
      {
        "description":"1 VM on, 2 vCPU, 20 RAM [GIGABYTE PER HOUR]",
        "pricePointResource":{
          "resourceURL":"/pricepoint/0x1x2x2x3x20"
        },
        "price":3.3
      },
      {
        "description":"1 VM on, 1 SATA storage [GIGABYTE PER HOUR]",
        "pricePointResource":{
          "resourceURL":"/pricepoint/0x1x20x1"
        },
        "price":8.0
      }
    ]
  }
}

```

Create Pricing Profile

HTTP Verb	POST
URI Template	/account/{accID}/pricingprofile/virtual
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Description	Creates a new pricing profile within an account. Note that the new pricing profile has to match the current assigned profile
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

Note: The JSON body of the example request has been trimmed to improve readability.

```
POST /pncp-external-api-rest/account/88/pricingprofile/virtual HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp SmBJLJKF3lFftzxwBGrGaAHZp7JGmv9kDMoKHZ2/LS4=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 5332
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081

{
  "pricingProfileName": "TestPP440013bf",
  "nodePricingDetails": [
    {
      "nodeResource": {
        "resourceURL": "/node/1"
      },
      "pricePoints": [
        {
          "price": 2.7,
          "pricePointResource": {
            "resourceURL": "/pricepoint/0x1x2x2x3x14"
          }
        },
        ...
        {
          "price": 1.1,
          "pricePointResource": {
            "resourceURL": "/pricepoint/0x1x2x1x3x512"
          }
        },
        {
          "price": 1.0,
          "pricePointResource": {
            "resourceURL": "/pricepoint/0x1x107x1"
          }
        }
      ]
    }
  ]
}
```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 10:13:46 GMT

{
  "resourceURL":"/pricingprofile/50/virtual "
}

```

Field Info

Field Name	Required
pricingProfileName	✓
[nodePricingDetails]	✓
[nodePricingDetails].nodeResource	✓
[nodePricingDetails].pricePoints	✓
[pricePoints].price	✓
[pricePoints].pricePointResource	✓

Set Default Pricing Profile

HTTP Verb	PUT
URI Template	/pricingprofile /{ppID}/virtual /setDefault?reseller={YES NO}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for pricing profiles created by their own account as well as any other account they own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-
rest/pricingprofile/50/virtual/setDefault?reseller=NO HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp WFNgXeGhvdLas62NYBGuSWTqW9GcqlETQ0qhHmcz4es=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Fri, 03 Feb 2012 10:13:54 GMT

true
```

Get Default Pricing

HTTP Verb	GET
URI Template	/account/{accID}/pricingprofile/virtual/default?reseller={YES NO}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients cannot invoke this method.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-
rest/account/4138/pricingprofile/virtual/default?reseller=NO HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP dmK5SklueWRrTElUL0FGR05RV2xoZkZVGRsSzVRND0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

Note: The JSON body of the example response has been trimmed to improve readability.

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 01 Mar 2012 17:06:15 GMT

{
  "pricingProfileName": "PNAP PP 2",
  "assignmentDate": "2012/02/29 10:43:00",
  "endDate": null,
  "nodePricingDetails": [
    {
      "nodeResource": {
        "resourceURL": "/node/1"
      },
      "pricePoints": [
        {
          "description": "1 VM on, 2 vCPU, 14 RAM [GIGABYTE PER HOUR]",
          "pricePointResource": {
            "resourceURL": "/pricepoint/0x1x2x2x3x14"
          },
          "price": 1.7
        }
      ]
    }
  ]
}
```


(Continued)

```

    {
      "description": "1 VM on, 1 vCPU, 512 RAM [MEGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x1x3x512"
      },
      "price": 0.1
    },
    {
      "description": "1 VM on, 8 vCPU, 40 RAM [GIGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x8x3x40"
      },
      "price": 5.4
    },
    ...
    {
      "description": "1 VM on, 8 vCPU, 24 RAM [GIGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x8x3x24"
      },
      "price": 3.8
    },
    {
      "description": "1 VM on, 2 vCPU, 2 RAM [GIGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x2x3x2"
      },
      "price": 0.5
    },
    {
      "description": "1 VM on, 1 vCPU, 16 RAM [GIGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x1x3x16"
      },
      "price": 1.7
    },
    {
      "description": "1 VM on, 8 vCPU, 16 RAM [GIGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x8x3x16"
      },
      "price": 3.0
    }
  ]
}

```

Sample Request Reseller

```
GET /pncp-external-api-
rest/account/4138/pricingprofile/virtual/default?reseller=YES HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP dmk5SklueWRrTElUL0FGR05RV2xoZkZVGRsSzVRND0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

Note: The JSON body of the example response has been trimmed to improve readability.

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 01 Mar 2012 17:06:15 GMT

{
  "pricingProfileName": "PNAP PP 2",
  "assignmentDate": "2012/02/29 10:43:00",
  "endDate": null,

  "nodePricingDetails": [
    {
      "nodeResource": {
        "resourceURL": "/node/1"
      },

      "pricePoints": [
        {
          "description": "1 VM on, 2 vCPU, 14 RAM [GIGABYTE PER HOUR]",
          "pricePointResource": {
            "resourceURL": "/pricepoint/0x1x2x2x3x14"
          },
          "price": 1.7
        },
        {
          "description": "1 VM on, 1 vCPU, 512 RAM [MEGABYTE PER HOUR]",
          "pricePointResource": {
            "resourceURL": "/pricepoint/0x1x2x1x3x512"
          },
          "price": 0.1
        }
      ]
    }
  ]
}
```

(Continued)

```

    {
      "description": "1 VM on, 8 vCPU, 40 RAM [GIGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x8x3x40"
      },
      "price": 5.4
    },
    ...
    {
      "description": "1 VM on, 8 vCPU, 24 RAM [GIGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x8x3x24"
      },
      "price": 3.8
    },
    {
      "description": "1 VM on, 2 vCPU, 2 RAM [GIGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x2x3x2"
      },
      "price": 0.5
    },
    {
      "description": "1 VM on, 1 vCPU, 16 RAM [GIGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x1x3x16"
      },
      "price": 1.7
    },
    {
      "description": "1 VM on, 8 vCPU, 16 RAM [GIGABYTE PER HOUR]",
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x8x3x16"
      },
      "price": 3.0
    }
  ]
}

```

Assign Pricing Profile to Account

HTTP Verb	PUT
URI Template	/account/{accID}/assignedpricingprofile/virtual
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for any account they own but not their own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

```

PUT /pncp-external-api-rest/account/4141/assignedpricingprofile/virtual
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json.0+json
Authorization: PNCP NjRmNmNjZWIGNDME14QzNFUXZpNzdyRWRMND0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 64
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
{
  "pricingProfileResource":{
    "resourceURL":"/pricingprofile/207/virtual"
  }
}

```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Tue, 07 Feb 2012 09:58:56 GMT

{
  "resourceURL":"/pricingprofile/105/virtual"
}

```

Field Info

Field Name	Required
pricingProfileResource	✓

Add Node Pricing Profile to All Account Pricing Profiles

HTTP Verb	PUT
URI Template	/account/{accID}/pricingprofile/virtual
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for any account they own but not their own. End-clients cannot place this request.
Response Mode	Synchronous.

Sample Request

Note: The JSON body of the example request has been trimmed to improve readability.

```
PUT /pncp-external-api-rest/account/88/pricingprofile/virtual HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP
ZmE3NzM3NjBiYTl4NWZmNDc5NWJiZDA2Y2M2NDA3MTA6N1VaNVNONmE2MW0yOTM5V2p4TE5Qa3p
2NVVLSDFqSTNvc1laTGRGaHZjQT0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 5771
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082

{
  "pricePoints": [
    {
      "price": 370.906128,
      "pricePointResource": {
        "resourceURL": "/pricepoint/52x1"
      }
    },
    {
      "price": 739.812257,
      "pricePointResource": {
        "resourceURL": "/pricepoint/0x1x2x8x3x16"
      }
    },
    {
      "price": 420.093612,
      "pricePointResource": {
        "resourceURL": "/pricepoint/51x1"
      }
    }
  ],
  ...
}
```

(Continued)

```

    {
      "price":321.718645,
      "pricePointResource":{
        "resourceURL":"/pricepoint/0x1x2x1x3x12"
      }
    }
  ],
  "nodeResource":{
    "resourceURL":"/node/2"
  }
}

```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 14 Mar 2012 15:54:33 GMT

[
  {
    "resourceURL":"/pricingprofile/231/virtual"
  },
  {
    "resourceURL":"/pricingprofile/232/virtual"
  }
]

```

Field Info

Field Name	Required
nodeResource	✓
pricePoints	✓
[pricePoints].price	✓
[pricePoints].pricePointResource	✓

Public IP Locator APIs

API Calls in this section are used for Public IP Location, including List, Reserve, Get Details, and Release IP.

Get List of Public IPs by Account All Nodes

HTTP Verb	GET
URI Template	/account/{accID}/publicip
MIME Type	application/vnd.pncp.v1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/publicip HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 9y4vf3c2ORRnkgOQzpOP6savO/WBcJFwl5tNuPNBFsc=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 16:07:37 GMT

[
  {
    "resourceURL": "/publicip/172.27.1.135"
  },
  {
    "resourceURL": "/publicip/172.27.0.55"
  }
]
```

Get List of Public IPs by Node

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}/publicip
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/node/1/publicip HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 9y4vf3c2ORRnkgOQzpOP6savO/WBcJFwl5tNuPNBFsc=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 16:07:37 GMT

[
  {
    "resourceURL": "/publicip/172.27.1.135"
  },
  {
    "resourceURL": "/publicip/172.27.0.55"
  }
]
```


Reserve Public IP

HTTP Verb	POST
URI Template	/account/{accID}/node/{nodeID}/publicip
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/account/88/node/1/publicip HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp WREay4498Z2o7GMiETLe89oNktZEa/YXn7tj+7HszF0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 16:09:22 GMT

{
  "resourceURL": "/publicip/172.27.0.58"
}
```

Get Public IP Details

HTTP Verb	GET
URI Template	/publicip/{ipAddress}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for public IPs found in their own account as well as any other account they own. End-clients can invoke this for public IPs found in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/publicip/172.27.0.57 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 0Qs8cUvJsOKPT1EPwVxxFrHQumPi/wRx4zo0oIrMd3g=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 16:26:03 GMT

{
  "ipAddress": "172.27.0.57",
  "ipType": "ASSIGNED_TO_VM",
  "reserved": false,
  "assignedTo": [
    {
      "resourceURL": "/virtualmachine/542"
    }
  ],
  "nodeResource": {
    "resourceURL": "/node/1"
  },
  "accountResource": {
    "resourceURL": "/account/4138"
  }
}
```

Release Public IP

HTTP Verb	DELETE
URI Template	/publicip/{ipAddress}
MIME Type	application/vnd.pncp.v1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for public IPs found in their own account as well as any other account they own. End-clients can invoke this for public IPs found in their account only.
Response Mode	Synchronous.

Sample Request

```
DELETE /pncp-external-api-rest/publicip/172.27.0.58 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP mHM4Ad7+J3Lytd2EMZCtKriTxqFmRLMxNdv3+FLYdTY=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 16:09:22 GMT

true
```

Disk Management APIs for Virtual Machines

The following API Calls are used to manage disks on your Virtual Machines, including Listing, Adding, Modifying and Removing

Get List of Disks on Virtual Machine

HTTP Verb	GET
URI Template	/virtualmachine/{vmID}/disk?filter={ALL PRIMARY SECONDARY}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/virtualmachine/545/disk?filter=ALL HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP EWbAKDgMGtzzxuAoPRIOQWkX8s0/qwftE/nCzxnglVUY=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:26:32 GMT

[
  {
    "resourceURL": "/virtualmachine/545/disk/21"
  },
  {
    "resourceURL": "/virtualmachine/545/disk/22"
  }
]
```

Get Details of Disk on Virtual Machine

HTTP Verb	GET
URI Template	/virtualmachine/{vmID}/disk/{diskId}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/virtualmachine/545/disk/23 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP VdBZN6fCTKGH6cqLFem4Y07fr/JtkRVWxsSoQHSUYqA=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:32:41 GMT

{
  "name": "volume0123",
  "volumeSizeInGBs": 10,
  "controllerType": "SCSI",
  "controllerNumber": 0,
  "unitNumber": 1,
  "diskVolumeType": "SECONDARY"
}
```

Add Secondary Disk to Virtual Machine

HTTP Verb	POST
URI Template	/virtualmachine/{vmID}/disk
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
POST /pncp-external-api-rest/virtualmachine/545/disk HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp nfYDOJ+A5DNInlsC3RczNKlD8s+S0O5Bt5HoVSzoiGg=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 23
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
{
  "name": "volumename",
  "volumeSizeInGBs": 10
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:21:30 GMT
{
  "resourceURL": "/task/b9550509-413e-4446-9199-8a0ff6113027"
}
```

Field Info

Field Name	Required
name	✓
volumeSizeInGBs	✓

Modify Secondary Disk on Virtual Machine

HTTP Verb	PUT
URI Template	/virtualmachine/{vmID}/disk/{diskId}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/virtualmachine/545/disk/23 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCPUebpPn6yveGoxq7xmUKAi9rrKWNH2zr+jid8G36cVSw=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
{
  "name": "newvolumename",
  "volumeSizeInGBs": 12
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:43:41 GMT

{
  "resourceURL": "/task/1d43d353-b532-4d59-881e-9f307e2b2b69"
}
```

Remove Secondary Disk from Virtual Machine

HTTP Verb	DELETE
URI Template	/virtualmachine/{vmID}/disk/{diskId}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Invoked By	Resellers can invoke this for virtual machines found in their own account as well as any other account they own. End-clients can invoke this for virtual machines in their account only.
Response Mode	Asynchronous.

Sample Request

```
DELETE /pncp-external-api-rest/virtualmachine/545/disk/23 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp nfYDOJ+A5DNInlsC3RczNKlD8s+S0O5Bt5HoVSzoiGg=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 23
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 13:21:30 GMT
{
  "resourceURL": "/task/b9550509-413e-4446-9199-8a0ff6113027"
}
```


Operating System Templates

PNCP maintains a list of Operating System Templates that can be used on your Virtual Machines. The API Calls in this section provide Lists and Details about the Operating Systems that are currently available.

Get List of OS Templates

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}/ostemplate/virtual
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/node/1/ostemplate/virtual HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP HGPSPTuKWC+Uqjk8H9q8BPxzu9Ag1fDX/8j7O51LqH8=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 16:39:41 GMT

[
  {
    "resourceURL": "/ostemplate/3"
  },
  {
    "resourceURL": "/ostemplate/4"
  },
  {
    "resourceURL": "/ostemplate/5"
  }
]
```

Get OS Template Details

HTTP Verb	GET
URI Template	/ostemplate/{osID}/virtual
MIME Type	application/vnd.pncp.v1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for templates found in their own account as well as any other account they own. End-clients can invoke this for templates found in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/ostemplate/3/virtual HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP UpXWnJ/wOJ7nNZh/ROH7xh/Ek4OgLz5FdA8lLkx9Hvo=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 16:39:41 GMT

{
  "name": "CentOS 64 bit",
  "version": "6",
  "minimumStorageSpace": 16,
  "defaultAdministratorUsername": "root",
  "diskExpandable": true
}
```

Task APIs

The Task Services API Call is used to get the status of a previously sent Asynchronous task. Asynchronous calls previously sent will have given a Task ID (resourceURL in response calls) which is tracked with the Get Task Status call. By sending this resourceURL variable with the request, the system will respond with the status of that particular asynchronous task.

Get Task Status

HTTP Verb	GET
URI Template	/task/{taskID}
MIME Type	application/vnd.pncp.v3.0+json
Normal HTTP Response Code	200 OK
Invoked By	Resellers and end-clients can only invoke this for tasks created by themselves.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/task/8ab670f8-36fd-496d-b214-17943e742c9f
HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP WhX4vxJ6hV3BMdR/Vg+MMPaGxrGDzfQkr/LQ9zJsLCs=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response (When Task Still In Progress)

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:40:19 GMT
```

```
{
  "percentageComplete":15,
  "requestStateEnum":"OPEN",
  "processDescription":"Creating VM ExternalVMTest646bca17",
  "latestTaskDescription":"Creating VM image",
  "result":null,
  "errorCode":null,
  "errorMessage":null,
  "lastUpdatedTimestamp":"2012/01/26 11:25:22",
  "createdTimestamp":"2012/01/26 11:20:06"
}
```

Sample Response (When Task Completed)

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:21:02 GMT

{
  "percentageComplete":100,
  "requestStateEnum":"CLOSED_SUCCESSFUL",
  "processDescription":"Creating VM ExternalVMTestc4de7e9b",
  "latestTaskDescription":"Done",
  "result":{
    "resourceURL":"/virtualmachine/540"
  },
  "errorCode":null,
  "errorMessage":null,
  "lastUpdatedTimestamp":"2012/01/26 11:21:02",
  "createdTimestamp":"2012/01/26 11:20:06"
}

```

Notes

- **requestStateEnum** can be of value **OPEN**, **CLOSED_SUCCESSFUL** or **CLOSED_FAILED**.
- The fields **lastUpdatedTimestamp** and **createdTimestamp** are of type date of format **yyyy/MM/dd HH:mm:ss**.

User Account APIs

The following API Calls relate to User Accounts including tasks to List, List Details, Create, and Modify User Accounts.

Get List of User Accounts

HTTP Verb	GET
URI Template	/account/{accID}/user
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/user HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP RNMAEc7YM+ImEGRhQzKh8PHyG5kvyHnJP6ulfieI8Uo=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Mon, 30 Jan 2012 13:51:12 GMT
[
  {
    "resourceURL": "/user/140"
  },
  {
    "resourceURL": "/user/141"
  },
  {
    "resourceURL": "/user/143"
  },
  {
    "resourceURL": "/user/144"
  }
]
```

Get User Account Details

HTTP Verb	GET
URI Template	/user/{userID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for user accounts found in their own account as well as any other account they own. End-clients can invoke this for user accounts found in their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/user/140 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP ACqJXYdXPEqFPcBvExYB7x7BYEkpGtgVBXY0g5J1v+g=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8081
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Mon, 30 Jan 2012 13:51:12 GMT

{
  "userName": "paul",
  "level": "ADMIN",
  "firstName": "Paul",
  "lastName": "Smith",
  "email": "pauls@ccbilleu.com",
  "active": true,
  "lastLoginDate": "2012/01/30",
  "accountResource": {
    "resourceURL": "/account/88"
  },
  "userResource": {
    "resourceURL": "/user/140"
  }
}
```

Notes

- **level** can be set to either **ADMIN** or **READ_ONLY**.

Create User Account

HTTP Verb	POST
URI Template	/account/{accID}/user
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
POST /pncp-external-api-rest/account/88/user HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp xr4ktg7jbhFULXfwPXSvqPF9k375Cy7hU9ufjWpz2F0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 142
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8081
{
  "userName": "lewis",
  "password": "letmein",
  "firstName": "Lewis",
  "lastName": "Loyce",
  "email": "lewisl@ccbilleu.com",
  "active": true,
  "level": "READ_ONLY"
}
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Mon, 30 Jan 2012 13:51:12 GMT

{
  "resourceURL": "/user/150"
}
```

Notes

- **level** can be set to either **ADMIN** or **READ_ONLY**.

Field Info

Field Name	Required
Active	✓
email	✓
firstName	✓
lastName	✓
level	✓
password	✓
username	✓

Modify User Account

HTTP Verb	PUT
URI Template	/user/{userID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Invoked By	Resellers can invoke this for user accounts found in their own account as well as any other account they own. End-clients can invoke this for user accounts found in their account only.
Response Mode	Synchronous.

Sample Request

```
PUT /pncp-external-api-rest/user/150 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 99veUSOLIpWGTlG94uFlxOHSmAWopKC3XpDIEVLNqN0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 134
User-Agent: Jakarta Commons-HttpClient/3.1
Host: localhost:8081

{
  "password": "thenewpassword",
  "firstName": "Lewis",
  "lastName": "Loyce",
  "email": "lewisl2@ccbilleu.com",
  "active": false,
  "level": "READ_ONLY"
}
```


Sample Response

```

Sample Response
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Mon, 30 Jan 2012 13:51:13 GMT

{
  "userName": "lewis",
  "level": " READ_ONLY ",
  "firstName": "Lewis",
  "lastName": "Loyce",
  "email": "lewisl2@ccbilleu.com",
  "active": false,
  "lastLoginDate": "2012/01/30",
  "accountResource": {
    "resourceURL": "/account/88"
  },
  "userResource": {
    "resourceURL": "/user/150"
  }
}

```

Notes

- **level** can be set to either **ADMIN** or **READ_ONLY**.
- If **password** is not defined or set to null the password will not be reset.

Field Info

Field Name	Required
Active	✓
email	✓
firstName	✓
lastName	✓
level	✓
password	✓
username	✓

Node APIs

The following API Calls relate to general multi facility features.

Get List of Nodes by Account

HTTP Verb	GET
URI Template	/account/{accID}/node
MIME Type	application/vnd.pncp.v4.0+json
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/node HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP 52HCfaqtmxRaYYb6AEJhjgdXDovjh0JYFEdXVjPadBM=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 14:36:20 GMT
```

```
[
  {
    "resourceURL": "/node/1"
  },
  {
    "resourceURL": "/node/2"
  }
]
```

Get Node Details

HTTP Verb	GET
URI Template	/node/{nodeID}
MIME Type	application/vnd.pncp.v4.0+json
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/node/1 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP M2IzMGQ3NzM3NzBhODc8yV234asdfaT0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 18 Apr 2012 16:54:26 GMT

{
  "name": "Phoenix Enterprise Node 1"
  "description": "Phoenix Enterprise Node 1"
  "location": "Phoenix"
}
```

Risk Mitigation APIs

The following API Calls relate to risk mitigation features to allow suspension of PNCP customer accounts to deal with fraud and other issues.

Suspend/Unsuspend Users

HTTP Verb	PUT
URI Template	/account/{accID}/user/suspend?suspend={true false}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for account in their hierarchy but not for their own account. End-clients cannot invoke this.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/account/4663/user/suspend?suspend=true HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP M2IzMGQ3NzM3NzBhODC8yV234asdfaT0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 19
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "sendEmail":false
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 18 Apr 2012 16:54:26 GMT

{
  "resourceURL": "/task/d3400794-744b-4e4d-8035-52dc8c0fcb09"
}
```

Field Info

Field Name	Required
sendEmail	✓

Hold/Unhold Account

HTTP Verb	PUT
URI Template	/account/{accID}/hold?hold=={true false}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for account in their hierarchy but not for their own account. End-clients cannot invoke this.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/account/4663/hold?hold=true HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP ODQ4M2JhZWZWM2ZWZWFkNjUQmdXZ0hKZz1EdlAvcmc3VT0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 19
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "sendEmail":false
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 18 Apr 2012 16:56:36 GMT

{
  [
    "resourceURL":"/task/c916ceae-7e26-497d-a50b-a249ae3bc3c7"
  ]
}
```

Field Info

Field Name	Required
sendEmail	✓

Cancel Account Request

HTTP Verb	PUT
URI Template	/account/{accID}/cancel
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for account in their hierarchy but not for their own account. End-clients cannot invoke this.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/account/4663/cancel HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP ODQ4M2JhZWZWM2ZWZWFkNjUwVBdExlV3M0UFlYND0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 19
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "sendEmail":false
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 18 Apr 2012 16:57:37 GMT

{
  "resourceURL":"/task/c916ceae-7e26-d49f3145090b-d49f314509b8"
}
```

Field Info

Field Name	Required
sendEmail	✓

Reactivate Account

HTTP Verb	PUT
URI Template	/account/{accID}/reactivate
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for account in their hierarchy but not for their own account. End-clients cannot invoke this.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/account/4663/reactivate HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP ZTllMDNiOTBjMDQzM2mlzUT0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 19
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "sendEmail":false
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 18 Apr 2012 17:13:57 GMT

{
  "resourceURL":"/task/c916ceae-7e26-d49f3145090b-d49f314509b8"
}
```

Field Info

Field Name	Required
sendEmail	✓

Terminate Account

HTTP Verb	PUT
URI Template	/account/{acctID}/terminate
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for account in their hierarchy but not for their own account. End-clients cannot invoke this.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/account/4663/terminate HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP ODQ4M2JhZWZWM2ZWZkNjUwYND0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 19
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "sendEmail":false
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 18 Apr 2012 16:57:37 GMT

{
  [
    "resourceURL":"/task/c916ceae-7e26-497d-a50b-a249ae3bc3c7",
    "resourceURL":"/task/12312rfae-er26-4234d-werb-werb3bcwer7"
  ]
}
```

Field Info

Field Name	Required
sendEmail	✔

Notes

- All the child accounts in the hierarchical tree below the selected account will be terminated as well.

Enable/Disable Network for a Virtual Machine

HTTP Verb	PUT
URI Template	/virtualmachine/{vmID}/networkchange?enable={true false}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for account in their hierarchy but not for their own account. End-clients cannot invoke this.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/virtualmachine/5609/networkchange?enable=false HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCN NWQ4ZmJlNmZmYjZlNzAwMOD0=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 52
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888

{
  "reSuspendNetworkInMinutes":null,
  "sendEmail":false
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Wed, 18 Apr 2012 17:13:57 GMT

{
  "resourceURL": "/task/c916ceae-7e26-d49f3145090b-d49f314509b8"
}
```

Field Info

Field Name	Required
reSuspendNetworkInMinutes	
sendEmail	✓

Notes

- **reSuspendNetworkMinutes** should be left null when disabling the network of a VM. When enabling it can either be populated with an integer of minutes, in which case network to the VM will be resuspended after that amount of time. Otherwise it can be left null in which case network is not resuspended automatically.

Image APIs

The following API Calls relate to image services to allow listing of virtual machine images.

Create an Image from a Virtual Machine

HTTP Verb	POST
URI Template	/virtualmachine/{vmID}/exporttoimage
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Asynchronous.

Sample Request

```
POST /pncp-external-api-rest/virtualmachine/5970/exporttoimage HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP ZmUwOGRkYTNmY2ZlZjU5YzNlYyWnZSS0JBKzhadHFNRG5Waz0=
Content-Length: 129
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082


{
  "name": "ImageName",
  "description": "Image description goes here."
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:33:14 GMT

{
  "resourceURL": "/task/a747f6c5-67dc-46a7-bee8-53222db8624d"
}
```

Field Info

Field Name	Required
name	
description	

Get a List of All Images by Account - All Nodes

HTTP Verb	GET
URI Template	/account/{accID}/image
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/5974/image HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP M2IzMGQ3NzM3NzBhODC8yV234asdfaT0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:27:15 GMT

[
  {
    "resourceURL": "/image/379"
  },
  {
    "resourceURL": "/image/381"
  },
  {
    "resourceURL": "/image/382"
  },
  {
    "resourceURL": "/image/386"
  }
]
```

Get a List of All Images by Node

HTTP Verb	GET
URI Template	/account/{accID}/node/{nodeID}/ image
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/5974/node/1/image HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP M2IzMGQ3NzM3NzBhODc8yV234asdfaT0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:27:15 GMT

[
  {
    "resourceURL": "/image/379"
  },
  {
    "resourceURL": "/image/381"
  },
  {
    "resourceURL": "/image/382"
  }
]
```

Get Image Details

HTTP Verb	GET
URI Template	/image/{imageID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/image/423 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp ZmUwOGRkYTNmY2ZlZjU5YzliZWU3U0E2MXN0cDU5VT0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:38:38 GMT
{
  "creationDate": "2012/07/05 01:33:13",
  "nodeResource": {
    "resourceURL": "/node/1"
  },
  "imageSource": "VM_CLONE",
  "storageSizeMB": 2048,
  "downloadResource": {
    "resourceURL": "/image/423/download"
  },
  "name": "MyImage",
  "description": "Image description goes here."
}
```

Download Image

HTTP Verb	POST
URI Template	/image/{imageID}/download
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Asynchronous (if the image needs to be packaged before it can be downloaded) or Synchronous (if the image is already packaged for download).

Sample Request

```
POST /pncp-external-api-rest/image/428/download HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp waTJRRFBGblBKThhhN01qclZGai9QMllyajlJSW5weTJaOUlzPQ==
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082
```

Sample Response 1 (if download needs to be packaged first)

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 09:05:08 GMT

{
  "taskResource": {
    "resourceURL": "/task/4659c301-13d3-4094-afba-8af05d412bac"
  },
  "downloadURL": null
}
```

Sample Response 2 (if download is already packaged)

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 09:05:08 GMT

{
  "taskResource":null
  "downloadURL":
  "http://108.55.23.121/download/id=289dfuh2897h98sd?token=345089df092309gd8079"
}

```

Notes

- The URL is only valid for 10 seconds after which a new URL would need to be requested.
- Should the image to download need to be packaged first, the resultant download URL will be returned in the **processDescription** field at the end of the transaction.

Update Image Details

HTTP Verb	PUT
URI Template	/image/{imageID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Synchronous

Sample Request

```

PUT /pncp-external-api-rest/image/423 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP ZmUwOGRkYTNmY2ZlZjU5YzliZWUxOGFmNjJiOTZOWp6V2t1OFZCRT0=
Content-Length: 61
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082

{
  "name":"NewImageName",
  "description":"New image description"
}

```

Sample Response

```

HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:41:17 GMT

{
  "resourceURL": "/image/423"
}

```

Delete Image

HTTP Verb	DELETE
URI Template	/image/{imageID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Asynchronous

Sample Request

```

DELETE /pncp-external-api-rest/image/423 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP ZmUwOGRkYTNjQ1IrNmN2ZU1OT0kwZmpWSG5KYz0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082

```

Sample Response

```

HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:43:48 GMT

{
  "resourceURL": "/task/3eb658f2-7597-47ce-818a-2c5723980650"
}

```


Network Storage APIs

The following API Calls relate to network storage services to allow the creation and listing of network storages.

Create Network Storage Volume

HTTP Verb	POST
URI Template	/account/{accountID}/node/{nodeID}/networkstorage
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Asynchronous.

Sample Request (iSCSI example)

```
POST /pncp-external-api-rest/account/5970/node/1/networkstorage HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp ZmUwOGRkYTNmY2ZlZjU5YzNlYyWnZSS0JBKzhadHFNRG5Waz0=
Content-Length: 129
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082

{
  "name": "NetworkStorageName",
  "description": "Network Storage Description",
  "storageGB": 10,
  "emailPercentageAlert": 75,
  "volumeType": "iSCSI",
  "initiatorAlias": "myAlias",
  "diskType": "STANDARD"
}
```

Sample Response (NFS example)

```
POST /pncp-external-api-rest/account/5970/node/1/networkstorage HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp ZmUwOGRkYTNmY2ZlZjU5YzNlYyWnZSS0JBKzhadHFNRG5Waz0=
Content-Length: 131
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082

{
  "name": "NetworkStorageName",
  "description": "Network Storage Description",
  "storageGB": 20,
  "emailPercentageAlert": 75,
  "volumeType": "NFS",
  "folder": "myFolder",
  "volumeFolderName": "myVolumeFolder",
  "diskType": "STANDARD"
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:33:14 GMT

{
  "resourceURL": "/task/a747f6c5-67dc-46a7-bee8-53222db8624d"
}
```

Notes

- **volumeType** can be set to either **iSCSI** or **NFS**.
- **diskType** can be only be set to **STANDARD**.

Get a List of All Network Storage Volumes by Account - All Nodes

HTTP Verb	GET
URI Template	/account/{accountId}/networkstorage
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/5974/networkstorage HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp M2IzMGQ3NzM3NzBhODc8yV234asdfaT0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:27:15 GMT

[
  {
    "resourceURL": "/networkstorage/379"
  },
  {
    "resourceURL": "/networkstorage/381"
  },
  {
    "resourceURL": "/networkstorage/382"
  },
  {
    "resourceURL": "/networkstorage/386"
  }
]
```

Get Network Storage Volume by Node

HTTP Verb	GET
URI Template	/account/{accountId}/node/{nodeID}/networkstorage
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/5974/node/2/networkstorage HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp M2IzMGQ3NzM3NzBhODc8yV234asdfaT0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:27:15 GMT

[
  {
    "resourceURL": "/networkstorage/379"
  },
  {
    "resourceURL": "/networkstorage/381"
  }
]
```

Get Network Storage Volume Details

HTTP Verb	GET
URI Template	/networkstorage/{networkStorageID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/networkstorage/970 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp ZmUwOGRkYTNmY2ZlZjU5YzliZWU3U0E2MXN0cDU5VT0=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082
```

Sample Response (NFS example)

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:38:38 GMT
{
  "name": "NetworkStorageName",
  "description": "Network Storage Description",
  "storageGB": 20,
  "emailPercentageAlert": 75,
  "volumeType": "NFS",
  "folder": "myFolder",
  "volumeFolderName": "myVolumeFolder",
  "initiatorAlias": null,
  "nodeResource": {
    "resourceURL": "/node/1"
  },
  "accountResource": {
    "resourceURL": "/account/5970"
  },
  "usagePercentage": 10,
  "usageInBytes": 10485760,
  "diskType": "STANDARD"
}
```

Sample Response (iSCSI example)

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:38:38 GMT
{
  "name": "NetworkStorageName",
  "description": "Network Storage Description",
  "storageGB": 20,
  "emailPercentageAlert": 75,
  "volumeType": "iSCSI",
  "initiatorAlias": "myAlias",
  "nodeResource": {
    "resourceURL": "/node/1"
  },
  "accountResource": {
    "resourceURL": "/account/5970"
  },
  "usagePercentage": 5,
  "usageInBytes": 5242880,
  "diskType": "STANDARD"
}
```

Notes

- **volumeType** can be set to either **iSCSI** or **NFS**.
- **diskType** can be only be set to **STANDARD**.

Modify Network Storage Volume Details

HTTP Verb	PUT
URI Template	/networkstorage/{networkStorageID}
MIME Type	application/vnd.pncp.v.1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Asynchronous.

Sample Request

```
PUT /pncp-external-api-rest/networkstorage/970 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp ZmUwOGRkYTNmY2ZlZjU5YzNlYyWnZSS0JBKzhadHFNRG5Waz0=
Content-Length: 129
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082

{
  "name": "NewNetworkStorageName",
  "description": "New Network Storage Description",
  "storageGB": 15,
  "emailPercentageAlert": 50
}
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:33:14 GMT

{
  "resourceURL": "/task/a747f6c5-67dc-46a7-bee8-53222db8624d"
}
```

Delete Network Storage Volume

HTTP Verb	DELETE
URI Template	/networkstorage/{networkStorageID}
MIME Type	application/vnd.pncp.v1.0+json onwards
Normal HTTP Response Code	202 Accepted
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can also place this request for their own account.
Response Mode	Asynchronous.

Sample Request

```
DELETE /pncp-external-api-rest/networkstorage/2 HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp ZmUwOGRkYTNmY2ZlZjU5YzNlYyWnZSS0JBKzhadHFNRG5Waz0=
Content-Length: 129
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8082
```

Sample Response

```
HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 05 Jul 2012 08:33:14 GMT

{
  "resourceURL": "/task/a747f6c5-67dc-46a7-bee8-53222db8624d"
}
```


Network Configuration APIs

The following API Calls relate to network configuration services. A node can be in one of three network configurations: standard, advanced or custom. These calls allow the user to retrieve as well as change the current network configuration.

Get Network Configuration

HTTP Verb	GET
URI Template	/account/{acctID}/node/{nodeID}/network
MIME Type	application/vnd.pncp.v1.0+json onwards
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Synchronous.

Sample Request

```
GET /pncp-external-api-rest/account/88/node/1/network HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP Q7x4qkpHwmWYzMk7CKJvKWZyScIlJaYY1fFWMuMB1lI=
Content-Length: 0
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8888
```

Sample Response

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Tue, 31 Jan 2012 15:54:24 GMT
{
  "networkConfig": "ADVANCED",
  "networkStoragePrivateIP": "10.0.0.8",
  "networkMask": "255.255.255.0",
  "gatewayIP": "10.0.0.1",
  "dnsServers": [
    "8.8.4.4"
  ],
  "privateIpRangeFirst": "10.0.0.11",
  "privateIpRangeLast": "10.0.0.254",
  "leaseTimeDefaultSecs": 7200,
  "leaseTimeMaxSecs": 86400
}
```

Notes

- **networkConfig** can be set to **STANDARD**, **ADVANCED** or **CUSTOM**.

Modify Network Configuration

HTTP Verb	PUT
URI Template	/account/{accID}/node/{nodeID}/network
MIME Type	application/vnd.pncp.v1.0+json onwards
Normal HTTP Response Code	200 OK
Can be invoked by	Resellers can invoke this for their own account as well as any other account they own. End-clients can invoke this for their account only.
Response Mode	Asynchronous.

Sample Request (standard mode)

```
PUT /account/{accID}/node/{nodeID}/network HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp riPRdnHM9DAd6aVSNQ9UqTocG3UI7JyGzhvZP2+BeSk=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 115
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
{
  "networkConfig": "STANDARD"
}
```

Sample Response (advanced mode)

```
PUT /account/{accID}/node/{nodeID}/network HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCp riPRdnHM9DAd6aVSNQ9UqTocG3UI7JyGzhvZP2+BeSk=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 115
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
{
  "networkConfig": "ADVANCED",
  "networkStoragePrivateIP": "10.0.0.9",
  "networkMask": "255.255.255.0",
  "gatewayIP": "10.0.0.1",
  "dnsServers": [
    "8.8.4.4",
    "8.8.4.5"
  ],
  "privateIpRangeFirst": "10.0.0.20",
  "privateIpRangeLast": "10.0.0.54",
  "leaseTimeDefaultSecs": 8900,
  "leaseTimeMaxSecs": 90300
}
```

Sample Request (custom mode)

```

PUT /account/{accID}/node/{nodeID}/network HTTP/1.1
Accept: application/vnd.pncp.v.5.0+json
Authorization: PNCP riPRdnHM9DAd6aVSNQ9UqTocG3UI7JyGzhvZP2+BeSk=
Content-Type: application/vnd.pncp.v.5.0+json
Content-Length: 115
User-Agent: Jakarta Commons-HttpClient/3.1
Host: 127.0.0.1:8081
{
  "networkStoragePrivateIP": "10.0.0.9",
  "networkMask": "255.255.255.0",
  "gatewayIP": "10.0.0.1"
}

```

Sample Response

```

HTTP/1.1 202 Accepted
Server: Apache-Coyote/1.1
Pragma: no-cache
Expires: Thu, 01 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Cache-Control: no-store
Content-Type: application/vnd.pncp.v.5.0+json
Transfer-Encoding: chunked
Date: Thu, 26 Jan 2012 11:06:13 GMT

{
  "resourceURL": "/task/8ab670f8-36fd-496d-b214-17943e742c9f"
}

```

Field Info

Field Name	Required
networkConfig	Always required. Can be <i>STANDARD</i> , <i>ADVANCED</i> or <i>CUSTOM</i>
networkStoragePrivateIP	Required for <i>ADVANCED</i> and <i>CUSTOM</i> network modes
networkMask	Required for <i>ADVANCED</i> and <i>CUSTOM</i> network modes
gatewayIP	Required for <i>ADVANCED</i> and <i>CUSTOM</i> network modes
dnsServers	Required for <i>ADVANCED</i> network modes
privateIpRangeFirst	Required for <i>ADVANCED</i> network modes
privateIpRangeLast	Required for <i>ADVANCED</i> network modes
leaseTimeDefaultSecs	Required for <i>ADVANCED</i> network modes
leaseTimeMaxSecs	Required for <i>ADVANCED</i> network modes

Code Examples

This section contains RUBY and JAVA code examples.

Ruby Code Example

Sample Authorization Key Generation

This is a sample authorization that must be used in all requests against the API.

```
#Creates authorization header for a given method and URL.
def self.createAuthorization(method, url)
  stringToSign = method + " " + removeServletName(url) + " " +
@applicationKey
  hash = OpenSSL::HMAC.digest('sha256', @sharedSecret, stringToSign)
  requestSignature = Base64.encode64(hash).gsub(/\s+/, ' ').strip
  credentials = @applicationKey + ":" + requestSignature;
  encodedCredentials = Base64.encode64(credentials).gsub(/\s+/, '
').strip
  return encodedCredentials
end

#Removes the servlet name from a given external API URL.
def self.removeServletName(url)
  urlAsArray = url.split("/");
  newURL = ""
  for i in 4..(urlAsArray.size() - 1)
    newURL += "/" + urlAsArray[i]
  end
  return newURL
end
```

Sample Get Request

```

APP_CONTENT_TYPE = "application/vnd.pncp.v1.0+json"
AUTH_SCHEME = "PNCP "

#Sends an HTTP GET request and returns response.
def self.sendGETRequest(authInfo, url)

  self.runChecks

  begin

    @applicationKey = authInfo.getApplicationKey()
    @sharedSecret = authInfo.getSharedSecret()

    @url = URI.parse(url)

    #Setup SSL validation.
    http = Net::HTTP.new(@url.host, @url.port)
    http.use_ssl = true
    http.verify_mode = OpenSSL::SSL::VERIFY_PEER
    http.cert_store = OpenSSL::X509::Store.new
    http.cert_store.set_default_paths
    http.cert_store.add_file(PEM_FILE_PATH)

    #Create and execute request
    request = Net::HTTP::Get.new(@url.request_uri)
    request['Accept'] = APP_CONTENT_TYPE
    request['Authorization'] = AUTH_SCHEME + createAuthorization("GET", url)
    response = http.request(request)

    rescue Exception => e
      raise "Error creating API request: " + e.message

  end

  #Raise error if response is not successful.
  self.handleResponseError(response)

  #Return response.
  return response
end

```

Sample Post Request

```

APP_CONTENT_TYPE = "application/vnd.pncp.v1.0+json"
AUTH_SCHEME = "PNCP "

#Sends an HTTP POST request and returns response.
def self.sendPOSTRequest(authInfo, url, body)

  self.runChecks

  begin

    @applicationKey = authInfo.getApplicationKey()
    @sharedSecret = authInfo.getSharedSecret()

    @url = URI.parse(url)

    #Setup SSL validation.
    http = Net::HTTP.new(@url.host, @url.port)
    http.use_ssl = true
    http.verify_mode = OpenSSL::SSL::VERIFY_PEER
    http.cert_store = OpenSSL::X509::Store.new
    http.cert_store.set_default_paths
    http.cert_store.add_file(PEM_FILE_PATH)

    #Create and execute request
    request = Net::HTTP::Post.new(@url.request_uri)
    request['Accept'] = APP_CONTENT_TYPE
    request['Content-Type'] = APP_CONTENT_TYPE
    request['Authorization'] = AUTH_SCHEME + createAuthorization("POST", url)
    request.body = body
    response = http.request(request)

    rescue Exception => e
      raise "Error creating API request: " + e.message

  end

  #Raise error if response is not successful.
  self.handleResponseError(response)

  #Return response.
  return response
end

```

JAVA Code Example

Sample Authorization Key Generation

This is a sample authorization that must be used in all requests against the API.

```
/**
 * Returns the Encoded string used to authenticate with the external api
 *
 * @throws InvalidKeyException
 */
private static String getEncodedString(Uri fullUrl, String apiKey, String secret, String
httpVerb)
    throws InvalidKeyException {

    try {

        SecretKeyFactory keyFactory = SecretKeyFactory.getInstance("PBKDF2WithHmacSHA256");
        SecretKey decryptedSecretKey =
            keyFactory.generateSecret(new PBKDF2KeySpec(secret.toCharArray()));

        // recompose the full url - use only what is required
        String recomposedUrl = fullUrl.getRawPath().replace("/pncp-external-api-rest", "");

        if (fullUrl.getRawQuery() != null && !fullUrl.getRawQuery().isEmpty()) {
            recomposedUrl += "?" + fullUrl.getRawQuery();
        }

        // build the string to sign
        String stringToSign = String.format("%s %s %s", httpVerb, recomposedUrl, apiKey);

        // generate request signature
        Mac mac = Mac.getInstance("HmacSHA256");
        mac.init(decryptedSecretKey);
        byte[] hash = mac.doFinal(stringToSign.getBytes());
        String requestSignature = new String(Base64.encode(hash));

        // encode the credentials
        String credentials = apiKey + ":" + requestSignature;
        return new String(Base64.encode(credentials.getBytes()));

    } catch (NoSuchAlgorithmException nsaex) {

        nsaex.printStackTrace();
    } catch (InvalidKeySpecException iksex) {

        iksex.printStackTrace();
    }

    return null;
}
```

Sample Get Request

```
// concatenate api URL together with the resource
URI fullUrl = new URI(apiUrl + resourcePath);

// configure the HTTP call
HttpGet httpget = new HttpGet(fullUrl);
httpget.setHeader("Accept", "application/vnd.pncp.v1.0+json");
httpget.setHeader("Authorization", "PNCP " + getEncodedString(fullUrl, apiKey, secret,
"GET"));

// send request to api and obtain the response
HttpResponse response = new DefaultHttpClient().execute(httpget);
if (response.getStatusLine().getStatusCode() != expectedStatus) {
    throw new Exception(response.toString());
}
HttpEntity entity = response.getEntity();
InputStream stream = entity.getContent();

// read from response
String string = getStringFromInputStream(stream);
```

Sample Post Request

```
// concatenate api URL together with the resource
URI fullUrl = new URI(externalApiUrl + resourcePath);

// configure the HTTP call
HttpPost httpPost = new HttpPost(fullUrl);
httpPost.setHeader("Accept", "application/vnd.pncp.v1.0+json");
httpPost.setHeader("Authorization", "PNCP " + getEncodedString(fullUrl, apiKey, secret,
"POST"));
httpPost.setHeader("Content-Type", "application/vnd.pncp.v1.0+json");

// set all parameters in post request
StringEntity stringEntity = new StringEntity(requestBody);
httpPost.setEntity(stringEntity);

// send request to api and obtain the response
HttpResponse response = new DefaultHttpClient().execute(httpPost);
logger.debug("Response Received!");
if (response.getStatusLine().getStatusCode() != expectedStatus) {
    throw new Exception(response.toString());
}
HttpEntity entity = response.getEntity();
InputStream stream = entity.getContent();

// read from response
String string = getStringFromInputStream(stream);
```


Glossary

Allocation

Limitations on VCPU, memory, and storage usage that PhoenixNAP may assign to Resellers and End Clients directly attached to PhoenixNAP's account and that each Reseller may assign to End Clients and other Resellers assigned to their account. The Allocation limits the total amount of vCPU, memory (RAM), and storage each Reseller and its descendent accounts can use.

Application Programming Interface (API)

A Source-Code-based specification that is intended to be used as an interface by software components to communicate with each other.

Asynchronous Call

A form of input/output processing that permits other processing to continue before the transmission has completed.

End Client

An account that purchases and consumes cloud products and is then billed for them. End Clients are always owned by exactly 1 Reseller.

Firewall

A networking device that sits between a server and the rest of the Internet that decides what network traffic to allow through and what network traffic to block based on the rules configured within it.

Firewall Rules

A user-configurable set of policies that dictate what traffic the firewall will allow to pass through, and what traffic the firewall will block.

Load Balancer

A networking device that can distribute workload among multiple VM's or physical servers.

Load Balancer Pool

A collection of IP addresses that have been identified as possible targets in a load balanced system. Each entry in the pool is an IP address that the load balancer can choose to use to support traffic going to the load balancer IP for that particular pool. In this case, the IP address does not have to be on the cloud; it can be an IP for a cloud VM, an EC2 VM or even a physical server somewhere.

Pricing Profile

A dollar amount assigned to each possible element of a cloud product that represents the amount to charge for those products—How much to charge for storage, how much for memory, how much for load balancer bandwidth, and so on. The pricing profile may then be assigned to a given account which will cause that account to be billed the prices in the pricing profile.

Private IP

Private IP refers to connectivity into a private extranet network which by its design emulates the functioning of the Internet. We assign 1 private IP to every VM automatically, and they are intended to allow customers to access their VMs even if they do not want to make them accessible to the public Internet.

Public IP

Public IP addresses are addresses assigned to computers and devices so that they can find each other on the Internet.

Reboot

Immediately power off and power on a VM.

Reseller

A Reseller is an account that purchases Cloud services with the intention of selling those services to other entities. That Reseller bills their own end clients for services at their own rates and pays you the base price that you charge them for the services.

Storage

Also known as disk space, this is the amount of storage space allotted for data storage on a virtual machine.

Synchronous Call

A form of input/output processing that does not permit other processing to continue before the transmission has completed.

Virtual Machine (VM)

A virtual computer server. A VM always has 4 main configurable elements for it—VCPU, memory, storage, and operating system—and allows other optional services to be used with it (firewall rules, load balancer pools, public IP addresses, and a backup option).

Visual Group

Allows users to group VM's in containers manually based on their own criteria. A single VM may be placed in multiple visual groups.

VM Configuration

A stored, recallable set of configurations for a VM (VCPU, memory, etc.) that a given user can pick when creating a new VM in order to quickly fill out the form to get it set up.

VM Template

A specific type of cloud product where a client has created A VM that has been created by a client and modified (installed certain software, set up certain configurations, etc.) in order to create a VM that is

tailored to a specific purpose. The client can then use this customized VM as a base to create a template which they can use to quickly deploy new VMs with the identical custom configuration.