

An abstract background featuring a collection of 3D rectangular blocks in white, grey, and red, arranged in a staggered, overlapping pattern that creates a sense of depth and movement.

FUJITSU Cloud Service K5 IaaS API Reference (Contract Management)

Version 2.0
FUJITSU LIMITED

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Preface

Structure of the manuals

Manual Title	Purposes and Methods of Use
IaaS API Reference • Foundation Service • Network • Application Platform Service • Management Administration • Contract Management (this document)	Detailed reference for using the REST API.
IaaS Features Handbook	Explains the features provided by this service.
IaaS API User Guide	Explains how to use the REST API, how to build the API runtime environment, and sample scripts according to usage sequences, etc.
IaaS Heat Template Specifications	This document explains the format of the Heat Orchestration Template (HOT) that you create in order to use the orchestration function.
IaaS Service Portal User Guide	This document explains how to use the functions provided by this service via Service Portal (Web GUI).
K5 Portal User Guide	This document explains how to use the functions, including registration and user information management, provided by K5 Portal.

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Contents

Part 1: Usage Status Display.....	1
1.1 Billing Information Display.....	2
1.1.1 API List.....	2
1.1.2 General Requirements.....	2
1.1.3 Common API Error Information.....	2
1.1.4 API Details.....	3
1.1.4.1 Obtaining the Final billing information (GET /v1/charges/YYYY/MM).....	3
1.1.4.2 Obtaining the Interim Billing Information (GET /v1/charges/transition/YYYY/MM).....	8
Part 2: Product Management.....	15
2.1 Product Management.....	16
2.1.1 API List.....	16
2.1.2 General Requirements.....	16
2.1.3 API Details.....	16
2.1.3.1 Obtaining the List of Products and Price information (GET /v1.0/allproducts)...	16
Part 3: Contract Management.....	27
3.1 Contract Management.....	28
3.1.1 API List.....	28
3.1.2 General Requirements.....	28
3.1.3 Common API Items.....	28
3.1.4 Common API Error Information.....	29
3.1.5 API Details.....	33
3.1.5.1 Obtaining the Confidential Information of Subscriber's organization (GET /v1/confidential/domains/{domain_id}).....	33
3.1.5.2 Start Usage of Region (POST /v1/contracts/{domain_id}?action=startRegion)...	35
3.1.5.3 Obtaining the Information from Region in Use (GET /v1/contracts/{domain_id}?action=getRegion).....	37
3.1.5.4 Region List (GET /v1/regions?region_id={region_id}).....	38

Part 1: Usage Status Display

Topics:

- *Billing Information Display*

1.1 Billing Information Display

1.1.1 API List

No	API Name	Process Overview
1	GET /v1/charges/YYYY/MM Get the final Billing Information for each month	To get final billing information for each month in accordance with specified period and conditions.
2	GET /v1/charges/transition/YYYY/MM Get Interim Billing Information for specified date and time of each month.	To get the interim billing information of each month in accordance with specified period and conditions.

1.1.2 General Requirements

This section describes the general requirements for using this API.

- Request parameter must be sent through HTTP GET unless otherwise specified.

1.1.3 Common API Error Information

Error Information (Response) of Common API is shown below.

Status

Return status of requests

400:	If there is an invalid parameter.
401:	Authentication error. Authentication token does not exist, or if there is an error in the authentication token.
404:	If Specified URL does not exist, or if there is an error in the URL.
415:	If an invalid content type is specified.
500:	If an unexpected error has occurred.

Data Type	Cardinality
Int	1..1

1.1.4 API Details

1.1.4.1 Obtaining the Final billing information (GET /v1/charges/YYYY/MM)

To get the final billing information of each month in accordance with specified period and conditions.

Billing information of specific month can be obtained by specifying four digits of the year as "YYYY" and 2 digits of the month as "MM" in URI. For example: To get billing information of 2015/03 then specify "/v1/charges/2015/03" in URI.

Request Headers

X-Auth-Token :

Specify Authentication token ID.

Data Type	Cardinality
String	1..1

Request Parameter

Refine search criteria can be specified with the following key. Each key is searched for an exact match.

domain_id

Specify the domain ID in refine search criteria. If Domain ID is not specified as default then it is derived from authentication token.

Data Type	Cardinality
String	0..1

project_id

Specify the Project ID in refine search criteria.

At the time of specifying, it returns aggregate billing information of every project.

Data Type	Cardinality
String	0..1

product_id

Specify Product ID in refine search criteria.

Data Type	Cardinality
String	0..1

service_id

Specify Service ID in refine search criteria.

Data Type	Cardinality
String	0..1

region_id

Specify Region ID (where resources are deployed) in refine search criteria.

Data Type	Cardinality
String	0..1

Response Headers

Status

Returns status of the request.

As per below or according to status described in [[Common API Error Information](#) on page 2] .

200 : Successful Completion.

Data Type	Cardinality
Int	1..1

Content-Type

application/json

Data Type	Cardinality
String	1..1

Response Elements

last_modified

Last modified date and time (UTC) of this data.

Displayed in ISO-8601 format as follows.

YYYY-MM-DDT'hh:mm:ss.sss

It does not specify time zone.

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

billing_month

Billing of the required month will be displayed in below format.

"YYYY-MM" .

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

sub_div

Sub division of billing. Depending on sub division, the following string is returned.

Each Domain : "D"

Each Project : "P"

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

domain_id

Billable Domain ID.

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

project_id

Billable Project ID.

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

line_seq

Line number on the description.

Data Type	Cardinality	Parent Element	Child Element(s)
Number	1..1	None	None

detail_div

Details on the description. Depending on the category, the following string is returned.

Fixed Amount : 01

Time Period : 02

Usage : 03

Discount : 04

SubTotal : 05

Adjustment : 07

Total : 08

Comment : 99

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

reseller_id

Reseller ID of the Subscriber

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

product_id

Billable Product ID

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

region_id

Billable Region ID

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

service_provider_id

Service Provider ID of the product

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

product_name

Array containing the product name for each language.

List of each element with object type has following members.

“lang” (String) : Language Code (ISO639-1)
“value” (String) : Product Name

Data Type	Cardinality	Parent Element	Child Element(s)
Array	1..1	None	None

comment

Array containing remarks information for each language.

List of each element with object type has following members.

“lang” (String) : Language Code (ISO639-1)
“value” (String) : Remarks

Data Type	Cardinality	Parent Element	Child Element(s)
Array	1..1	None	None

usage

Billing as per Usage

Data Type	Cardinality	Parent Element	Child Element(s)
Number	1..1	None	None

unit_price

Unit price of products

Data Type	Cardinality	Parent Element	Child Element(s)
Number	1..1	None	None

unit_name

Array containing units of usage for each language.

List of each element with object type has following members.

"lang" (String) : Language Code (ISO639-1)

"value" (String) : String that represents the unit.

Data Type	Cardinality	Parent Element	Child Element(s)
Array	1..1	None	None

charge

Billing Amount

Data Type	Cardinality	Parent Element	Child Element(s)
Number	1..1	None	None

currency_code

Currency code of the billing amount (ISO4217)

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

Example of Request

```
GET /v1/charges/2014/06
HTTP/1.1
X-Auth-Token: "JpZCI6ICJjM2VlNzA4YTZhZTI0ZGRmOTJjMDc4..."
```

Example of Response

```
HTTP/1.1 200 OK
Content-Type : application/json

[
{
  "last_modified" : "2014-07-01T12:00:00.000",
  "billing_month" : "2014-06",
  "sub_div" : "D",
  "domain_id" : "ca-1a2b3c4d5e",
  "project_id" : "capj-1a2b3c4d5e",
  "line_seq" : 1,
  "detail_div" : "01",
  "reseller_id" : "ResellerId",
  "product_id" : "P01C010001",
  "region_id" : "jp-east-1",
  "service_provider_id" : "fujitsu.com",
  "service_id" : "compute",
  "product_name" : [
    { "lang" : "ja", "value" : "syouhinmei" },
    { "lang" : "en", "value" : "Product Name" },
    { "lang" : "de", "value" : "Produktname" }
  ],
  "comment" : [
    { "lang" : "ja", "value" : "bikou" },
    { "lang" : "en", "value" : "Notes" },
    { "lang" : "de", "value" : "Bemerkungen" }
  ]
}
```

```

    ],
    "usage" : 400,
    "unit_price" : 100,
    "unit_name" : [
      { "lang" : "ja", "value" : "GB" },
      { "lang" : "en", "value" : "GB" },
      { "lang" : "de", "value" : "GB" }
    ],
    "charge" : 40000,
    "currency_code" : "JPY"
  },
  {
    "last_modified" : "2014-07-01T12:00:00.000",
    "billing_month" : "2014-06",
    "sub_div" : "D",
    "domain_id" : "ca-1a2b3c4d5e",
    "project_id" : "capj-1a2b3c4d5e",
    "line_seq" : 2,
    "detail_div" : "01",
    "reseller_id" : "ResellerId",
    "product_id" : "P01C010001",
    "region_id" : "uk-1",
    "service_provider_id" : "fujitsu.com",
    "service_id" : "compute",
    "product_name" : [
      { "lang" : "ja", "value" : "syounhinmei" },
      { "lang" : "en", "value" : "Product Name" },
      { "lang" : "de", "value" : "Produktname" }
    ],
    "comment" : [
      { "lang" : "ja", "value" : "bikou" },
      { "lang" : "en", "value" : "Notes" },
      { "lang" : "de", "value" : "Bemerkungen" }
    ],
    "usage" : 200,
    "unit_price" : 100,
    "unit_name" : [
      { "lang" : "ja", "value" : "GB" },
      { "lang" : "en", "value" : "GB" },
      { "lang" : "de", "value" : "GB" }
    ],
    "charge" : 20000,
    "currency_code" : "JPY"
  }
]

```

1.1.4.2 Obtaining the Interim Billing Information (GET /v1/charges/transition/YYYY/MM)

To get interim billing information of each month in accordance with specified period and conditions.

Billing information of specific month can be obtained by specifying four digits of the year as "YYYY" and 2 digits of the month as "MM" in URI. For example : To get billing information of 2015/03 then specify "/v1/charges/transition/2015/03" in URI.

Request Headers

X-Auth-Token:

Specify Authentication token ID.

Data Type	Cardinality
String	1..1

Request Parameter

start_date

Specify start date and time in search range to display Collection period. ("collected_at").
(ISO8601 Format : YYYY-MM-DD'Thh:mm:ss.sss)

Data Type	Cardinality
String	1..1 [Mandatory]

end_date

Specify end date and time in search range to display Collection period. ("collected_at").
(ISO8601 Format: YYYY-MM-DD'Thh:mm:ss.sss)

Data Type	Cardinality
String	1..1 [Mandatory]

domain_id

Specify the domain ID in refine search criteria. Default Domain ID obtained from the authentication token is used.

Data Type	Cardinality
String	0..1

project_id

Specify the Project ID in refine search criteria. Returns aggregated billing information of every project.

Data Type	Cardinality
String	0..1

product_id

Specify Product ID in refine search criteria.

Data Type	Cardinality
String	0..1

service_id

Specify Service ID in refine search criteria.

Data Type	Cardinality
String	0..1

region_id

Specify Region ID (where resources are deployed) in refine search criteria.

Data Type	Cardinality
String	0..1

Response Headers

Status

Returns the status of the request.

As per below or according to status described in [[Common API Error Information](#) on page 2] .

200 : Successful Completion.

Data Type	Cardinality
Int	1..1

Content-Type

application/json

Data Type	Cardinality
String	1..1

Response Elements

last_modified

Last modified date and time (UTC) of this data.

Displayed in ISO-8601 format as follows.

YYYY-MM-DDT'hh:mm:ss.sss

It does not specify time zone.

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

billing_month

Billing of the required month will be displayed in below format.

"YYYY-MM"

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

collected_at

Collection Period of the data. The data indicated are calculated on the basis of usage of from Day 1, 00:00 Hrs of the month to date that is specified in the element "billing_month".

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

sub_div

Sub division of billing. Depending on sub division, the following string is returned.

Each Domain : "D"

Each Project : "P"

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

domain_id

Billable Domain ID.

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

project_id

Billable Project ID.

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

line_seq

Line number on the description.

Data Type	Cardinality	Parent Element	Child Element(s)
Number	1..1	None	None

detail_div

Details on the description. Depending on the category, the following string is returned.

Fixed Amount : 01

Time Period : 02

Usage : 03

Discount : 04

SubTotal : 05

Adjust : 07

Total : 08

Comment : 99

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

reseller_id

Reseller ID of the Subscriber

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

product_id

Billable Product ID

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

region_id

Billable Region ID

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

service_provider_id

Service Provider ID of the product

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

product_name

Array containing the product name for each language.

List of each element with object type has following members.

“lang” (String) : Language Code (ISO639-1)
“value” (String) : Product Name

Data Type	Cardinality	Parent Element	Child Element(s)
Array	1..1	None	None

comment

Array containing remarks information for each language.

List of each element with object type has following members.

“lang” (String) : Language Code(ISO639-1)
“value” (String) : Remarks

Data Type	Cardinality	Parent Element	Child Element(s)
Array	1..1	None	None

usage

Billing as per Usage

Data Type	Cardinality	Parent Element	Child Element(s)
Number	1..1	None	None

unit_price

Unit price of products

Data Type	Cardinality	Parent Element	Child Element(s)
Number	1..1	None	None

unit_name

Array containing units of usage for each language.

List of each element with object type has following members.

“lang” (String) : Language Code(ISO639-1)

“value” (String) : String that represents the unit.

Data Type	Cardinality	Parent Element	Child Element(s)
Array	1..1	None	None

charge

Billing Amount

Data Type	Cardinality	Parent Element	Child Element(s)
Number	1..1	None	None

currency_code

Currency code of the billing amount (ISO4217)

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	None

Example of Request

```
GET /v1/charges/transition/2014/06?
start_date=2014-06-01T00:00:00.000&end_date=2014-06-15T00:00:00.000&region_id=jp-
east-1 HTTP/1.1
X-Auth-Token: "JpZCI6ICJjM2VlNzA4YTZhZTI0ZGRmOTJjMDC4..."
```

Example of Response

```
HTTP/1.1 200 OK
Content-Type : application/json

[
{
  "last_modified" : "2014-06-01T15:00:00.000",
  "billing_month" : "2014-06",
  "collected_at" : "2014-06-01T12:00:00.000",
  "sub_div" : "D",
  "domain_id" : "ca-1a2b3c4d5e",
  "project_id" : "capj-1a2b3c4d5e",
  "line_seq" : 1,
  "detail_div" : "01",
  "reseller_id" : "ResellerId",
  "product_id" : "P01C010001",
  "region_id" : "jp-east-1",
  "service_provider_id" : "fujitsu.com",
  "service_id" : "compute",
  "product_name" : [
    { "lang" : "ja", "value" : "syounhinmei" },
    { "lang" : "en", "value" : "Product Name" },
    { "lang" : "de", "value" : "Produktname" }
  ],
  "comment" : [
    { "lang" : "ja", "value" : "bikou" },
    { "lang" : "en", "value" : "Notes" },
```

```

    { "lang" : "de", "value" : "Bemerkungen" }
  ],
  "usage" : 400,
  "unit_price" : 100,
  "unit_name" : [
    { "lang" : "ja", "value" : "GB" },
    { "lang" : "en", "value" : "GB" },
    { "lang" : "de", "value" : "GB" }
  ],
  "charge" : 40000,
  "currency_code" : "JPY"
},
{
  "last_modified" : "2014-06-02T03:00:00.000",
  "billing_month" : "2014-06",
  "collected_at" : "2014-06-02T00:00:00.000",
  "sub_div" : "D",
  "domain_id" : "ca-1a2b3c4d5e",
  "project_id" : "capj-1a2b3c4d5e",
  "line_seq" : 2,
  "detail_div" : "01",
  "reseller_id" : "ResellerId",
  "product_id" : "P01C010001",
  "region_id" : "uk-1",
  "service_provider_id" : "fujitsu.com",
  "service_id" : "compute",
  "product_name" : [
    { "lang" : "ja", "value" : "syouhinmei" },
    { "lang" : "en", "value" : "Product Name" },
    { "lang" : "de", "value" : "Produktname" }
  ],
  "comment" : [
    { "lang" : "ja", "value" : "bikou" },
    { "lang" : "en", "value" : "Notes" },
    { "lang" : "de", "value" : "Bemerkungen" }
  ],
  "usage" : 200,
  "unit_price" : 100,
  "unit_name" : [
    { "lang" : "ja", "value" : "GB" },
    { "lang" : "en", "value" : "GB" },
    { "lang" : "de", "value" : "GB" }
  ],
  "charge" : 20000,
  "currency_code" : "JPY"
}
]

```

Part 2: Product Management

Topics:

- *Product Management*

2.1 Product Management

2.1.1 API List

No.	API Name	Processing Overview
1	GET /v1.0/allproducts Obtaining the list of products and price information	Obtaining the list of Products and pricing information (service name, category name, product name, unit, unit price) from the user product catalog.

2.1.2 General Requirements

This section describes the general requirements for using this API.

- Request parameter must be sent through HTTP GET unless otherwise specified.

2.1.3 API Details

2.1.3.1 Obtaining the List of Products and Price information (GET /v1.0/allproducts)

Obtain the list of products and price information (service name, category name, product name, unit, unit price) from the user product catalogue.

Request Headers

X-Auth-Token

Specify the authentication token ID.

Data Type	Cardinality
String	1..1

Request Parameter

Locale

Specify the language of the product information in the product catalogue (Language which is specified in "Service in" will be used).

In case of Japanese, English, German, as shown below.

ja:	Japanese
en:	English
de:	German

Data Type	Cardinality
String	1..1

ResellerId

Specify the Reseller ID.

The Reseller ID which belongs to the user will be considered if it is not specified.

Data Type	Cardinality
String	0..1

ServiceProviderId

Specify the Service provider ID.

The entire Service provider ID will be considered if it is not specified.

Data Type	Cardinality
String	0..1

RegionId

Specify the Region ID

The entire Region ID will be considered if it is not specified.

Data Type	Cardinality
String	0..1

ServiceId

Specify the Service ID

The entire Service ID will be considered if it is not specified.

Service ID's which exists are as follows.

compute:	Compute
network:	Network
image:	Image
software:	Software
blockstorage:	Blockstorage
objectstorage:	Objectstorage
database:	Database
loadbalancing:	Loadbalancer
dns:	DNS
telemetry:	Monitoring
queue:	Message Queue
mail:	Mail Delivery
vpnaas:	VPN
deploy:	Application Deployment
support:	Support

Data Type	Cardinality
String	0..1

Basedate

Specify the reference date.

Specify the reference date in accordance with the following ISO8601 compliance.

YYYY-MM-DD

However, the above mentioned reference date cannot be specified as a future date (current and past dates only). If specified it will cause an error.

System Date will be used in case if it is not specified.

Data Type	Cardinality
String	0..1

Response Headers

Content-Type

"Application/xml" will be specified.

Data Type	Cardinality
String	1..1

Response Elements

CatalogList

Displays the entire product and price information (root element).

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	None	Catalog

Catalog

Displays the product and price information that are attached to 1 reseller.

※Conditions when tag does not display is as follows.

Suggested:

When there is no product information (product ID) in catalog or if it is disabled completely.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	CatalogList	ResellerId Region

ResellerId

Reseller ID

※If Catalog tag is not displayed, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	Catalog	None

Region

Displays the product and price information attached to 1 region.

※ Following are the conditions when tag does not display.

Suggested:

When there is no region information (RegionID) in catalog or if it is disabled completely.

※ If Catalog tag is not displayed, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..n	Catalog	RegionId ServiceProvider

RegionId

Region ID

※ If Catalog and Region tags does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	Region	None

ServiceProvider

Displays the product and price information attached to 1 service provider.

※ If Catalog, Region tag does not display, then specified tag also does not display.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..n	Region	ServiceProviderId Service

ServiceProviderId

Service Provider ID

※ If Catalog, Region tag does not display, then specified tag also does not display.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	ServiceProvider	None

Service

Displays the product and price information attached to 1 service.

※ Following are the conditions when tag does not display.

Suggested:

When there is no service information (ServiceName) in catalog or if it is disabled completely.

※ If Catalog and Region tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..n	ServiceProvider	ServiceName Category

ServiceName

Service Name

Following are the attributes.

xml:lang : Locale

※ If Catalog, Region and Service tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	Service	None

Category

Displays the product and price information attached to 1 category.

※ Following are the conditions when tag does not display.

Suggested:

When there is no category information (CategoryName) in catalog or if it is disabled completely.

※ If Catalog, Region and Service tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..n	Service	CategoryName Product

CategoryName

Category Name

Following are the attributes

xml:lang : Locale

※ If Catalog, Region, Service and Category tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	Category	None

Product

Displays the products and price information that is attached to 1 product.

※ Following are the conditions when tag does not display.

If neither the product information (Product Name), nor the unit information (unit information) exists in Product, or if it is disabled completely.

※ If Catalog, Region, Service and Category tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..n	Category	ProductId ProductName UnitName InitialCharge MonthlyChargeInfo

ProductId

Product ID

※ If Catalog, Region, Service, Category and Product tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	Product	None

ProductName

Product ID

Following are the attributes.

xml:lang : Locale

※ If Catalog, Region, Service, Category and Product tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	String	1..1

UnitName

Unit name

Following are the attributes.

xml:lang : Locale

※ If Catalog, Region, Service, Category and Product tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	Product	None

InitialCharge

Displays the initial price information.

※ If Catalog, Region, Service, Category and Product tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	Product	UnitPrice

UnitPrice

Product unit cost (initial cost)

Following are the attributes.

currencyid: Currency ID to be applied to the product unit price (currency code of ISO 4217)

Returns the currency ID which the operator had registered before.

Therefore, the upper limit of the number of occurrences (n) of element will become the number of registered currency ID.

If you do not specify a unit price for the currency ID, only the tag containing this attribute (without value) is returned.

※ If Catalog, Region, Service, Category and Product tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..n	InitialCharge	None

MonthlyChargeInfo

[If the accounting system is either fixed billing or usage-based billing]

Displays the monthly price information

Following are the attributes.

order: Registration sequence
Fixed value ("1").

※ If Catalog, Region, Service, Category and Product tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	Product	UnitPrice

[In case of variable usage based billing]

Shows the monthly price information that includes the information about the variations.

Following are the attributes.

order: Registration sequence
The number registered by the user will be assigned in a specified order.

※ If Catalog, Region, Service, Category and Product tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..n	Product	Description UnitPrice

Description

[If the accounting system is either fixed billing or usage-based billing]

Since the value does not change, this information is not used (Not returned for both Tag and value)

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..0	-	-

[If the billing system is variable usage billing]

Description regarding the price fluctuation.

Following are the attributes.

xml:lang: Locale

※ If Catalog, Region, Service, Category and Product tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..1	MonthlyChargeInfo	None

UnitPrice

Product unit price (monthly fee)

Following are the attributes

currencyid: Currency ID to be applied to the product unit price (currency code of ISO 4217)

Returns the currency ID which the operator had registered before.

Therefore, the upper limit of the number of occurrences (n) of element will become the number of registered currency ID.

If the unit price for the currency ID is not specified, only the tag containing the attribute (without value) is returned.

※ If Catalog, Region, Service, Category and Product tag does not display, then this tag also will not be displayed.

Data Type	Cardinality	Parent Element	Child Element(s)
String	0..n	MonthlyChargeInfo	None

Example of Request

```
GET
/v1.0/allproducts?Locale=en&Basedate=2014-08-31
X-Auth-Token:MIIZuwYJKoZIhvcNAQc...(Authentication Token ID is not mentioned).
```

Example of Response

[If Billing method is Fixed billing, Usage based Billing and Unit price is specified].

```
HTTP/1.1 200 OK
Date: Sun, 31 Aug 2014 00:00:00 GMT
Content-Length: 5000
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8"?>
<CatalogList>
  <Catalog>
    <ResellerId>jp.fujitsu.com</ResellerId>
    <Region>
      <RegionId>jp-east-1</RegionId>
    <ServiceProvider>
      <ServiceProviderId>fcx.fujitsu.com</ServiceProviderId>
    <Service>
      <ServiceName xml:lang="en">compute</ServiceName>
      <Category>
        <CategoryName xml:lang="en">VM Service</CategoryName>
      <Product>
        <ProductId>VM00001</ProductId>
        <ProductName xml:lang="en">VM Service S-1Type</ProductName>
        <UnitName xml:lang="en">hours</UnitName>
        <InitialCharge>
          <UnitPrice currencyid="JPY">0</UnitPrice>
          <UnitPrice currencyid="AUD">0</UnitPrice>
          ... (※Multiple UnitPrice responses also possible)
```

```

</InitialCharge>
<MonthlyChargeInfo order="1">
  <UnitPrice currencyid="JPY">10</UnitPrice>
  <UnitPrice currencyid="AUD">0.01</UnitPrice>
  ...(<b>Multiple</b> UnitPrice responses also possible)
</MonthlyChargeInfo>
</Product>
...(<b>Multiple</b> Product responses also possible)
<Category>
  ...(<b>Multiple</b> category responses also possible)
</Service>
...(<b>Multiple</b> Service responses also possible)
</ServiceProvider>
...(<b>Multiple</b> Service Provider responses also possible)
</Region>
...(<b>Multiple</b> Region responses also possible)
</Catalog>
</CatalogList>

```

[If the billing method is variable usage based billing, specify unit price in currency (JPY) and if currency is not specified in (AUD)].

```

HTTP/1.1 200 OK
Date: Sun, 31 Aug 2014 00:00:00 GMT
Content-Length: 5000
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8"?>
<CatalogList>
  <Catalog>
    <ResellerId>jp.fujitsu.com</ResellerId>
    <Region>
      <RegionId>jp-east-1</RegionId>
    </Region>
    <ServiceProvider>
      <ServiceProviderId>fcx.fujitsu.com</ServiceProviderId>
    </ServiceProvider>
    <Service>
      <ServiceName xml:lang="en">mail</ServiceName>
    </Service>
    <Category>
      <CategoryName xml:lang="en">Mail Send Service</CategoryName>
    </Category>
    <Product>
      <ProductId>ML00001</ProductId>
      <ProductName xml:lang="en">Mail Send Service Mail Count</ProductName>
      <UnitName xml:lang="en">none</UnitName>
      <InitialCharge>
        <UnitPrice currencyid="JPY">0</UnitPrice>
        <UnitPrice currencyid="AUD"></UnitPrice>
        ...(<b>Multiple</b> UnitPrice responses also possible)
      </InitialCharge>
      <MonthlyChargeInfo order="1">
        <Description xml:lang="en">0[messages/month]</Description>
        <UnitPrice currencyid="JPY">0</UnitPrice>
        <UnitPrice currencyid="AUD"></UnitPrice>
        ...(<b>Multiple</b> UnitPrice responses also possible)
      </MonthlyChargeInfo>
      <MonthlyChargeInfo order="2">
        <Description xml:lang="en">under 10,000[messages/month]</
Description>
        <UnitPrice currencyid="JPY">3500</UnitPrice>
        <UnitPrice currencyid="AUD"></UnitPrice>
        ...(<b>Multiple</b> UnitPrice responses also possible)
      </MonthlyChargeInfo>
      ...(<b>Multiple</b> MonthlyChargeInfo responses also possible)
    </Product>
    ...(<b>Multiple</b> Product responses also possible)
  </Catalog>
  ...(<b>Multiple</b> Category responses also possible)

```

```

    </Service>
    ...(Multiple Service responses also possible)
  </ServiceProvider>
  ...(Multiple ServiceProvider responses also possible)
</Region>
...(Multiple Region responses also possible)
</Catalog>
</CatalogList>

```

[Suggested:

When there is no product information (product ID) in catalog or if it is disabled completely.]

```

HTTP/1.1 200 OK
Date: Sun, 31 Aug 2014 00:00:00 GMT
Content-Length: 5000
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8"?>
<CatalogList/>

```

[Suggested:

When there is no Region information (RegionID) in catalog or if it is disabled completely.]

```

HTTP/1.1 200 OK
Date: Sun, 31 Aug 2014 00:00:00 GMT
Content-Length: 5000
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8"?>
<CatalogList>
  <Catalog>
    <ResellerId>jp.fujitsu.com</ResellerId>
  </Catalog>
</CatalogList>

```

[Suggested:

When there is no service information (ServiceName) in catalog or if it is disabled completely.]

```

HTTP/1.1 200 OK
Date: Sun, 31 Aug 2014 00:00:00 GMT
Content-Length: 5000
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8"?>
<CatalogList>
  <Catalog>
    <ResellerId>jp.fujitsu.com</ResellerId>
    <Region>
      <RegionId>jp-east-1</RegionId>
      <ServiceProvider>
        <ServiceProviderId>fcx.fujitsu.com</ServiceProviderId>
      </ServiceProvider>
      ...(Multiple ServiceProvider responses also possible)
    </Region>
    ...(Multiple Region responses also possible)
  </Catalog>
</CatalogList>

```

[Suggested:

When there is no category information (CategoryName) in catalog or if it is disabled completely.]

```
HTTP/1.1 200 OK
Date: Sun, 31 Aug 2014 00:00:00 GMT
Content-Length: 5000
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8"?>
<CatalogList>
  <Catalog>
    <ResellerId>jp.fujitsu.com</ResellerId>
    <Region>
      <RegionId>jp-east-1</RegionId>
      <ServiceProvider>
        <ServiceProviderId>fcx.fujitsu.com</ServiceProviderId>
        <Service>
          <ServiceName xml:lang="en">compute</ServiceName>
        </Service>
        ...(Multiple Service responses also possible)
      </ServiceProvider>
      ...(Multiple ServiceProvider responses also possible)
    </Region>
    ...(Multiple Region responses also possible)
  </Catalog>
</CatalogList>
```

[If neither product information (Product Name), nor the unit information (unit information) exists or if it is disabled completely (End of Application)]

```
HTTP/1.1 200 OK
Date: Sun, 31 Aug 2014 00:00:00 GMT
Content-Length: 5000
Content-Type: application/xml

<?xml version="1.0" encoding="UTF-8"?>
<CatalogList>
  <Catalog>
    <ResellerId>jp.fujitsu.com</ResellerId>
    <Region>
      <RegionId>jp-east-1</RegionId>
      <ServiceProvider>
        <ServiceProviderId>fcx.fujitsu.com</ServiceProviderId>
        <Service>
          <ServiceName xml:lang="en">compute</ServiceName>
          <Category>
            <CategoryName xml:lang="en">VM Service</CategoryName>
          </Category>
          ...(Multiple Category responses also possible)
        </Service>
        ...(Multiple Service responses also possible)
      </ServiceProvider>
      ...(Multiple ServiceProvider responses also possible)
    </Region>
    ...(Multiple Region responses also possible)
  </Catalog>
</CatalogList>
```

Part 3: Contract Management

Topics:

- [*Contract Management*](#)

3.1 Contract Management

3.1.1 API List

S.No.	API Name	Processing Overview
1	GET /v1/confidential/domains/{domain_id} Obtain the Subscriber's organizational confidential information	Obtain the Subscriber's organizational confidential information that matches with the specified domain (company name, subscriber name, etc.)
2	POST /v1/contracts/{domain_id}? action=startRegion	Start using the region.
3	GET /v1/contracts/{domain_id}? action=getRegion Obtain the information for region in use.	Contract matching with the specified domain will obtain the information of the region in use (Region ID, status of the region, etc.)
4	GET /v1/regions?region_id={region_id} Region List	Obtain the region list.

3.1.2 General Requirements

This section describes the general requirements for using this API.

3.1.3 Common API Items

Common API request header information is shown below.

Request Headers

X-Auth-Token

Describes the authentication token.

Data Type	Cardinality
String	1..1

Content-Type

Specify the following in case of PATCH method.

"application/json"

Data Type	Cardinality
String	0..1

3.1.4 Common API Error Information

Common API error information (response) is shown below.

Status

Returns the request status.

400 :	If there is an invalid parameter.
401 :	Authentication error. Authentication token does not exist or if there is an error in the authentication token.
403 :	Authorization error. If user is not the authorized subscriber.
404 :	In case the specified URL does not exist, or if there is an error in the specified URL.
500 :	If an unexpected error has occurred then the response body will not return.

Data Type	Cardinality
Int	1..1

The error information will be returned as follows.

Response Headers

Content-Length

Request length (Byte) excluding header.

Data Type	Cardinality
String	1..1

Content-Type

Content type

text/plain :	In case the status is 401.
application/json :	In case the status is other than 401

Data Type	Cardinality
String	1..1

Date

Response time

Data Type	Cardinality
String	1..1

WWW-Authenticate

URL for Authentication Service. Displayed only in case of authentication error.

Data Type	Cardinality
String	0..1

Response Elements (In case status is 401)

Below mentioned text will be returned.

"Authentication required"

Response Elements (If Status is other than 401, 500)

error

Error information container.

Data Type	Cardinality	Parent Element	Child Element(s)
Element	1..1	None	code title message item

code

Error Code

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	error	None

title

Error Summary

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	error	None

message

Error Message

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	error	None

item

Item error (Notification only if there is an item error)

Data Type	Cardinality	Parent Element	Child Element(s)
Element	0..1	error	item_name

item_name

Item name that caused the Error (Parameter name at the time of request)

Data Type	Cardinality	Parent Element	Child Element(s)
String Element	1..1	item	message

message

Error message corresponding to the item.

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	item_name	None

Error Code (code, title, message)

code	title	message	Description
400	Bad Request	Parse error	Request Body is incorrect (The root element is different, not in JSON format).
400	Bad Request	Parameter error.	Parameter error The input content is incorrect
400	Bad Request	Could not find user (%1)	The specified user ID does not exist The specified user ID is %1.
400	Bad Request	Could not match user in domain.	The specified user ID is not the domain user.
400	Bad Request	The contract is not active.	Not in contract.
400	Bad Request	Email address cannot be used.	The specified mail address is disabled.
400	Bad Request	The user was already contractor.	The specified user is already a subscriber.
404	Not Found	Could not find domain. (%1)	The specified domain ID does not exist. The specified domain ID is %1.

Item error (item)

Message	Description
Required.	Required item
Size error. (Min:%min, Max:%max)	Size Error %min : Acceptable minimum number of characters (Set Zero if items can be omitted) %max : Acceptable maximum number of characters
Invalid format.	Format is incorrect.

Message	Description
	When user name is included in the password, When @ symbol is not included in the mail address.
Invalid type.	Invalid value is specified. In case where "D" is set in places where you can only specify "A" , " B" , " C" .
Not found.	Information corresponding to the specified values are not registered.
Already exists.	Information corresponding to the specified values are already existing.

Example of Response

In case of parameter error

```
{
  "error": {
    "code": 400,
    "title": "Bad Request",
    "message": "Parameter error.",
    "item": {
      "secure": {
        "name": {
          "first": {
            "message": "Required."
          },
          "last": {
            "message": "Size error. (Min:0, Max:64)"
          }
        }
      }
    }
  }
}
```

In case of authentication error

Authentication required

In case of authorization error

```
{
  "error" : {
    "code" : 403,
    "title" : "Forbidden",
    "message" : "Authorization error."
  }
}
```

In case the specified organization does not exist.

```
{
  "error" : {
    "code" : 404,
```

```

    "title" : "Not Found",
    "message" : "Could not find domain, 304ce7245683491ebaf91ad63c1dd2c."
  }
}

```

3.1.5 API Details

3.1.5.1 Obtaining the Confidential Information of Subscriber's organization (GET /v1/confidential/domains/{domain_id})

To obtain the confidential information of subscriber's organization for the specified domain.

{domain_id}: Domain ID of the intended subscriber's organization.

Request Headers

Please refer to "[Common API Items](#) on page 28".

Request Parameter

None

Response Headers

Status

In case of "normal", the status will return as mentioned below.

200 : Successful completion

In case of abnormality, please refer to "[Common API Error Information](#) on page 29".

Data Type	Cardinality
Int	1..1

Response Elements

secure

Container of Subscriber's organization confidential information.

Data Type	Cardinality	Parent Element	Child Element(s)
Element	1..1	None	name company emergency

name

Container of Subscriber's name

Data Type	Cardinality	Parent Element	Child Element(s)
Element	1..1	secure	first last

Data Type	Cardinality	Parent Element	Child Element(s)
			furigana

first

Subscriber's Name

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	name	None

last

Subscriber's last name

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	name	None

furigana

Container of Subscriber's first and last name (only for japanese names in "furigana")

Data Type	Cardinality	Parent Element	Child Element(s)
Element	1..1	name	first last

first

Subscriber's first name (furigana name).

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	furigana	None

last

Subscriber's Last name. (furigana name).

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	furigana	None

company

Container of Company information

Data Type	Cardinality	Parent Element	Child Element(s)
Element	1..1	secure	name

name

Company name

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	company	None

emergency

Container of emergency point of contact.

Data Type	Cardinality	Parent Element	Child Element(s)
Element	1..1	secure	email_announce tel

email_announce

Contact person's mail address

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	emergency	None

tel

Telephone number

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..1	emergency	None

Example of Request

```
GET /v1/confidential/domains/fc8c41d7e36d49f7b66a3f9b1e25fc16
HTTP/1.1
Content-Type: application/json
X-Auth-Token: "JpZCI6ICJjM2VlNzA4YTZhZTI0ZGRmOTJjMDc4..."
```

Example of Response

```
HTTP/1.1 200 OK
Content-Length: 272
Content-Type: application/json; charset=UTF-8
{
  "secure" : {
    "name" : {
      "first" : "TARO",
      "last" : "FUJITSU",
    },
    "company" : {
      "name" : "a-company"
    },
    "emergency" : {
      "email_announce" : "fujitsu.taro@fujitsu.com",
      "tel" : "000-000-0000"
    }
  }
}
```

3.1.5.2 Start Usage of Region (POST /v1/contracts/{domain_id}? action=startRegion)

Start the use of the specified region.

{domain_id}:

Domain ID of the intended subscriber's organization.

Request Headers

Please refer to "[Common API Items](#) on page 28".

Response Elements

contract

Container of contract information.

Data Type	Cardinality	Parent Element	Child Element(s)
Element	1..1	None	regions

regions

Container of region information.

Data Type	Cardinality	Parent Element	Child Element(s)
Element	1..1	contract	id

id

ID of region in use.

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..*	Regions	None

Response Headers

Status

Returns below status in case of "normal" .

200 : Successful completion

In case of abnormality, please refer to "[Common API Error Information](#) on page 29".

Data Type	Cardinality
Int	1..1

Response Elements

None

Example of Request

```
POST /v1/contracts/fc8c41d7e36d49f7b66a3f9b1e25fc16?
action=startRegion
HTTP/1.1
Content-Type: application/json
X-Auth-Token: "JpZCI6ICJjM2VlNzA4YTZhZTI0ZGRmOTJjMDc4..."
{
  "contract": {
```

```

"regions": [
{
  "id": "jp-east-1"
},
{
  "id": "uk-1"
}
]
}

```

Example of Response

```

HTTP/1.1 200 OK
Content-Length: 0
Content-Type: application/json;charset=UTF-8

```

3.1.5.3 Obtaining the Information from Region in Use (GET /v1/contracts/{domain_id}?action=getRegion)

To obtain the Region information being used by the Subscriber's organization for the specified domain.

{domain_id}:

Domain ID for the intended Subscriber's organization.

Request Headers

Please refer to "[Common API Items](#) on page 28".

Request Parameter

None

Response Headers

Status

In case of "normal" , the status will return to the mentioned below.

200 :

Successful completion

In case of abnormality, please refer to "[Common API Error Information](#) on page 29".

Data Type	Cardinality
Int	1..1

Response Elements

Regions

Container for Region information.

Data Type	Cardinality	Parent Element	Child Element(s)
Element	1..1	None	id status

Data Type	Cardinality	Parent Element	Child Element(s)
			default

ID

Region ID

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..*	regions	None

Status

Status of Region

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..*	regions	None

default

In case of true, it will become the Contract Region.

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..*	regions	None

Example of Request

```
GET /v1/contracts/fc8c41d7e36d49f7b66a3f9b1e25fc16?action=getRegion
HTTP/1.1
Content-Type: application/json
X-Auth-Token: "JpZCI6ICJjM2VlNzA4YTZhZTI0ZGRmOTJjMDc4..."
```

Example of Response

```
HTTP/1.1 200 OK
Content-Length: 121
Content-Type: application/json; charset=UTF-8
{
  "regions": [
    {
      "id": "jp-east-1",
      "status": "active",
      "default": "true"
    },
    {
      "id": "uk-1",
      "status": "ready",
      "default": "false"
    }
  ]
}
```

3.1.5.4 Region List (GET /v1/regions?region_id={region_id})

Displays the region list.

The list can be filtered by specifying the Region ID.

{region_id}: Intended Region ID .

Request Headers

Please refer to "[Common API Items](#) on page 28".

Request Parameter

None

Response Headers

Status

Returns below status in case of "normal" .

200 : Successful completion

In case of abnormality, please refer to "[Common API Error Information](#) on page 29".

Data Type	Cardinality
Int	1..1

Response Elements

Regions

Container for Region information.

Data Type	Cardinality	Parent Element	Child Element(s)
Element	1..1	None	id

Id

Region ID

Data Type	Cardinality	Parent Element	Child Element(s)
String	1..*	regions	None

Example of Request

```
GET /v1/regions
HTTP/1.1
Content-Type: application/json
X-Auth-Token: "JpZCI6ICJjM2VlNzA4YTZhZTI0ZGRmOTJjMDc4..."
```

Example of Response

```
HTTP/1.1 200 OK
Content-Length: 51
Content-Type: application/json; charset=UTF-8
{
  "regions": [
    {
      "id": "jp-east-1"
```

```
},  
{  
  "id": "uk-1"  
}  
]  
}
```

FUJITSU Cloud Service K5 IaaS
API Reference (Contract Management) 2.0 version

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