



vCloud Integration Manager API Reference

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1. Using the vCloud Integration Manager API

1.1 About vCloud Integration Manager

VMware vCloud® Integration Manager™ (vCIM), designed for vCloud service providers, helps accelerate time to revenue and increase the operational efficiency of infrastructure-as-a-service (IaaS) cloud offerings, based on VMware vCloud Director™.

vCIM gives you the flexibility to rapidly create and manage new and existing services offerings for maximum profitability, selling them to the right mix of customers through the right channels.

Service providers can manage the end-to-end lifecycle of customers with onboarding, trials, provisioning, and decommissioning of cloud services. Customers are delivered cloud products and services with minimal operational overhead. In addition, service providers can now define and manage the lifecycle of products that they wish to sell to their customers. Resellers can utilize the same functionality for their specific customers and services.

1.2 Audience

This document assumes that the audience is familiar with the following technologies:

- VMware virtualization technology
- Operating systems such as Linux and Solaris on x86 platforms, and Windows
- REST framework and conventions
- XML

The audience for this guide is service provider developers.

1.3 Related Documentation

Subject Area	Found At
<i>vCloud Integration Manager Administrator Guide</i>	www.vmware.com/pdf/vCloudIntegrationManager10_AdminGuide.pdf
<i>vCloud Integration Manager Guidelines for a Public Cloud</i>	www.vmware.com/pdf/vCloudIntegrationManager10_Cloud_Guidelines.pdf
<i>vCloud Integration Manager Release Notes</i>	www.vmware.com/support/vcim/doc/rel_notes_vcloud_integration_manager_10.html
<i>vCloud API Programming Guide</i>	http://www.vmware.com/support/pubs
<i>VMware vCloud API XML (schema reference in HTML format)</i>	http://www.vmware.com/support/vcd/doc/rest-api-doc-1.5-html.zip

VMware vCloud Director™, VMware vSphere®, VMware vShield Manager™ (VSM), and VMware vCenter Chargeback™ product documentation	http://www.vmware.com/support/pubs and http://www.vmware.com/resources/techresources/
vCloud Architecture Toolkit (vCAT)	http://www.vmware.com/cloud-computing/cloud-architecture/vcat-toolkit.html

The vCloud Integration Manager REST API, exposed over HTTP, is provided for clients such as portals, scripts, and other programs that are considered external to vCloud Integration Manager. As much as possible, the REST API follows the standards defined by the vCloud Director API.

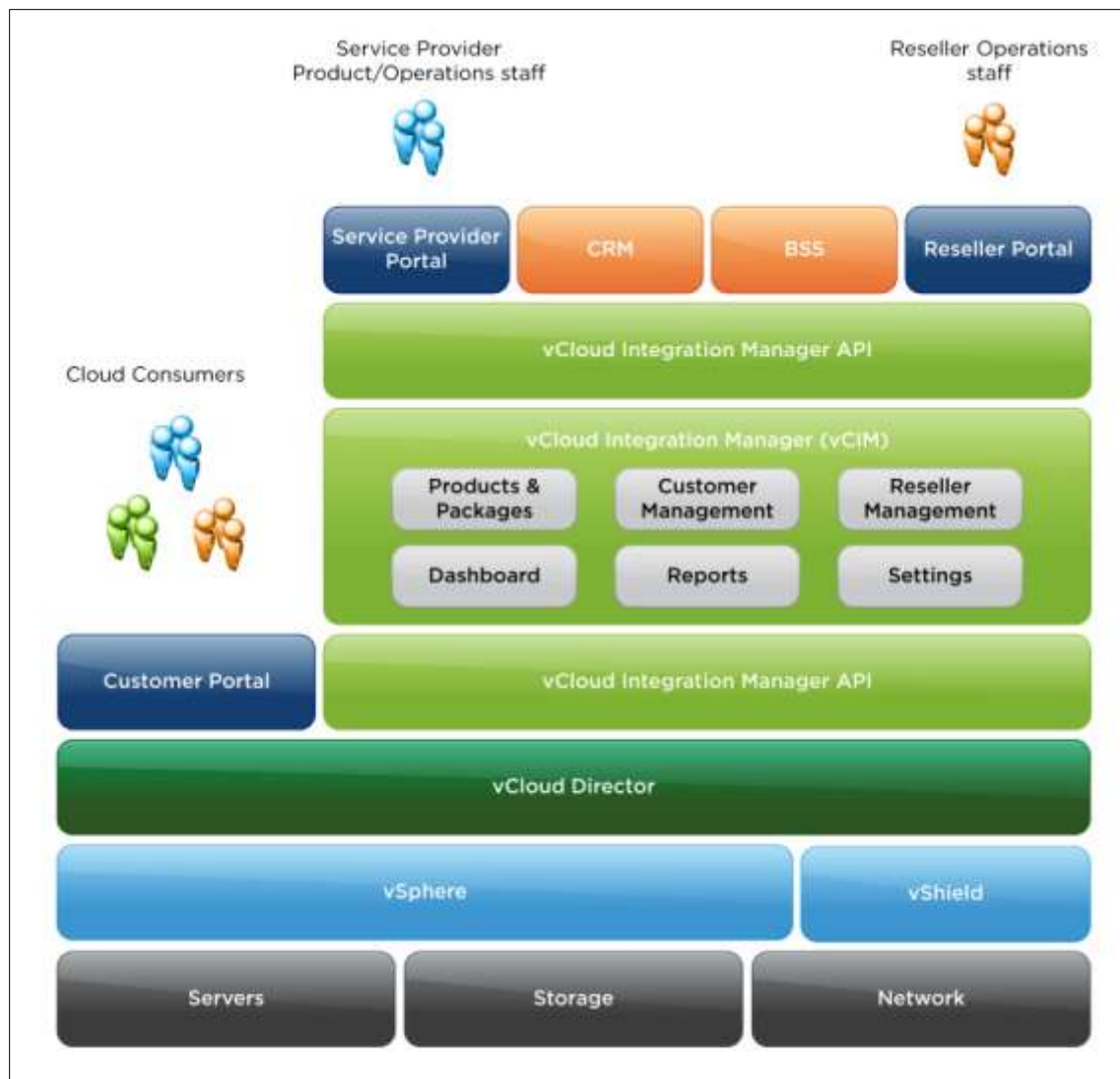
1.4 Language Bindings

Any programming language that supports REST framework will support vCloud Integration Manager API. The following are a few examples:

- Scala
- Java
- Python
- Perl
- C# (C Sharp)

1.5 Basic API Usage

The vCloud Integration Manager API works with the API of vCloud Director, as shown below:



All vCloud Integration Manager APIs require authentication. Make an `API versions` request to vCloud Integration Manager to obtain the login URL for the REST API. Use the login URL to create a login session. POST a request to this URL that includes your username, password, and organization name in MIME Base64 encoding.

A request to create a login session must supply the user's credentials in the following form:
[user@organization:password](#)

Variable	Represents
user	The user's login name.
organization	The name of an organization of which the user is a member
password	The user's password.

The response code indicates whether the request succeeded, or how it failed.

A successful login request returns an authentication token that you can use in subsequent requests. It also returns a Session element, which contains one or more Link elements, each of which provides a URL that you can use to explore a subset of objects in the cloud.

1.6 Operation Summary Syntax

Operations consist of an HTTP verb and a request URL. The reference documentation represents the verb and the URL using the following syntax:

```
HTTP_VERB /object_type/{id}[/action/action_name]
```

In this syntax, the initial / character is assumed to follow a site-specific API URL, such as `https://vcaf.example.com/api`. The following strings represent variables in the remainder of the URL:

Variable	Represents
HTTP_VERB	The HTTP verb used to request the operation (POST—create a new object; GET—retrieve the representation of an existing object; PUT—modify an existing object; DELETE—delete an existing object).
object_type	An abbreviation of the MIME type of the object referenced by the operation. This abbreviation is constructed from the final component of the object's content type. For example, for an object whose content type is <code>resellersettings+xml</code> , the <code>object_type</code> is shown as <code>resellersettings</code> .
{id}	The unique identifier of the object of the operation.
action_name	The name of an action. Required only when the operation request URL includes the string <code>/action/</code> .

All responses include an HTTP status code and, unless the status code is 204 (No Content), a Content-Type header. Response content depends on the request. Some responses include a document body, some include only a URL, and some are empty.

A vCloud Integration Manager API client can expect a subset of HTTP status codes in a response.

vCloud Integration Manager API HTTP Status Code	Status Description
200 OK	The request is valid and was completed. The response includes a document body.
201 Created	The request is valid. The requested object was created and can be found at the URL specified in the Location header.
202 Accepted	The request is valid and a task was created to handle it. This response is usually accompanied by a Task element.
204 No Content	The request is valid and was completed. The response does not include a body.
303 See Other	The response to the request can be found at the URL specified in the Location header.
400 Bad Request	The request body is malformed, incomplete, or otherwise invalid.
401 Unauthorized	An authorization header was expected but not found.
403 Forbidden	The requesting user does not have adequate privileges to access one or more objects specified in the request.
404 Not Found	One or more objects specified in the request could not be found in the specified container.
405 Method Not Allowed	The HTTP method specified in the request is not supported for this object.
409 Conflict	The request could not be completed due to a conflict with the current state of the resource.
500 Internal Server Error	The request was received but could not be completed because of an internal error at the server.
501 Not Implemented	The server does not implement the request.
503 Service Unavailable	One or more services needed to complete the request are not available on the server.

2. vCloud Integration Manager API—Products

This section summarizes these vCloud Integration Manager API product operations:

- [Get product types](#)
- [Get product type details](#)
- [Create a product template](#)
- [Delete a product template](#)
- [Activate a product template](#)
- [Search and find product templates](#)
- [Search and find products by customer](#)

2.1 Get product types

Service providers can retrieve all the product types in the system.

Role(s)	ServiceProviderUserRole
Operation	GET /api/extension/vcaf/productTypes
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.producttypelist+xml, application/vnd.vmware.vcloud.vcaf.error+xml

Sample
response

```

<ProductTypeListType
xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common"
xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_VirtualSystemSettingData"
xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_ResourceAllocationSettingData"
xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1"
xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1"
xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1"
xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1"
xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl"
xmlns:tns1="https://www.vmware.com/vcloud/versions"
xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5"
xmlns:vcaf="https://www.vmware.com/vcaf/v1"
xmlns:vcloud="https://www.vmware.com/vcloud/v1.5"
xmlns:xs="https://www.w3.org/2001/XMLSchema"
xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"
type="application/vnd.vmware.vcloud.vcaf.producttypelist+xml">

  <vcaf:ProductType name="Organization"
type="application/vnd.vmware.vcloud.vcaf.producttype+xml"
href="https://localhost/api/extension/vcaf/productType/00000000-0000-0000-
0000-000000000000"/>

  <vcaf:ProductType name="NAT Routed Network"
type="application/vnd.vmware.vcloud.vcaf.producttype+xml"
href="https://localhost/api/extension/vcaf/productType/1dd590a5-0fe3-4b00-
9521-404baa085039"/>

  <vcaf:ProductType name="Isolated Network"
type="application/vnd.vmware.vcloud.vcaf.producttype+xml"
href="https://localhost/api/extension/vcaf/productType/8b2d2d74-1956-401e-
a9f2-956555692a08"/>

  <vcaf:ProductType name="Bridged Network"
type="application/vnd.vmware.vcloud.vcaf.producttype+xml"
href="https://localhost/api/extension/vcaf/productType/94d66f49-61b4-48d6-
9a00-252d26d4a51e"/>

  <vcaf:ProductType name="Basic VDC"
type="application/vnd.vmware.vcloud.vcaf.producttype+xml"
href="https://localhost/api/extension/vcaf/productType/f9481c96-379c-4b93-
9b6c-ef330597f704"/>

  <vcaf:ProductType name="Committed VDC"
type="application/vnd.vmware.vcloud.vcaf.producttype+xml"
href="https://localhost/api/extension/vcaf/productType/c4fc9798-4d1c-440d-
b5ed-7e8490bcf101"/>

  <vcaf:ProductType name="Dedicated VDC"
type="application/vnd.vmware.vcloud.vcaf.producttype+xml"
href="https://localhost/api/extension/vcaf/productType/6c4f1a4e-7cb5-47ce-
9e92-59008cd700b4"/>

</ProductTypeListType>

```

Success
response

200 OK

2.2 Get product type details

Service Providers can retrieve all information in the system for a specific product type.

Role(s)	ServiceProviderUserRole
Operation	GET /api/extension/vcaf/productType/{id}

Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.producttype+xml, application/vnd.vmware.vcloud.vcaf.error+xml
Sample response	<pre> <ProductTypeType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tns1="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="94d66f49-61b4- 48d6-9a00-252d26d4a51e" name="Bridged Network" href="https://localhost/api/extension/vcaf/productType/94d66f49-61b4-48d6- 9a00-252d26d4a51e"> <vcaf:Description>A network in an organization that is directly connected to a provider network with no NAT between them.</vcaf:Description> <vcaf:Configuration> <vcaf:ConfigItem description="Contains reference to parent network." defaultValue="" type="xs:anyURI" displayName="Parent Network" key="orgnet.parentNetwork"/> </vcaf:Configuration> </ProductTypeType> </pre>
Success response	200 OK

2.3 Create a product template

Service providers can create a product template based on the product types available in the system.

Role(s)	ServiceProviderUserRole
Operation	POST /api/extension/vcaf/productTemplates
Content-Type	application/vnd.vmware.vcloud.vcaf.producttemplateparams+xml

Sample
request XML

```
<ProductTemplateParams
xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common"
xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_VirtualSystemSettingData"
xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_ResourceAllocationSettingData"
xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1"
xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1"
xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1"
xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1"
xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl"
xmlns:tns1="https://www.vmware.com/vcloud/versions"
xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5"
xmlns:vcaf="https://www.vmware.com/vcaf/v1"
xmlns:vcloud="https://www.vmware.com/vcloud/v1.5"
xmlns:xs="https://www.w3.org/2001/XMLSchema"
xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance">

  <vcaf:Name>Bridged Network</vcaf:Name>

  <vcaf:Description>A basic bridged network.</vcaf:Description>

  <vcaf:SKU>b5382f05-c444-4a44-a8d7-291989f57be9</vcaf:SKU>

  <vcaf:RateCardRef>Bridged Network Rate</vcaf:RateCardRef>

  <vcaf:ProductTypeRef
href="https://api.myself.com/api/vcaf/extension/productType/94d66f49-61b4-
48d6-9a00-252d26d4a51e"/>

  <vcaf:Configuration>
    <vcaf:ConfigItem>
      <vcaf:key>orgnet.parentNetwork</vcaf:key>
      <vcaf:value>https://api.myself.com/api/admin/network/f8035663-a56b-
40a0-ba8c-06dcd3e7e43f</vcaf:value>
    </vcaf:ConfigItem>
  </vcaf:Configuration>
</ProductTemplateParams>
```

Accept-Type

```
application/vnd.vmware.vcloud.vcaf.producttemplate+xml,
application/vnd.vmware.vcloud.vcaf.error+xml
```

Sample
response

```
<ProductTemplateType
xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common"
xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_VirtualSystemSettingData"
xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_ResourceAllocationSettingData"
xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1"
xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1"
xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1"
xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1"
xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl"
xmlns:tns1="https://www.vmware.com/vcloud/versions"
xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5"
xmlns:vcaf="https://www.vmware.com/vcaf/v1"
xmlns:vcloud="https://www.vmware.com/vcloud/v1.5"
xmlns:xs="https://www.w3.org/2001/XMLSchema"
xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" name="Bridged
Network" type="application/vnd.vmware.vcloud.vcaf.producttemplate+xml"
id="fd32e0ff-a02b-45d9-86d0-d904b7b22347"
href="https://localhost/api/extension/vcaf/productTemplate/fd32e0ff-a02b-
45d9-86d0-d904b7b22347">

  <vcaf:Description>A basic bridged network.</vcaf:Description>

  <vcaf:Status>OfferingInactive</vcaf:Status>

  <vcaf:SKU>b5382f05-c444-4a44-a8d7-291989f57be9</vcaf:SKU>

  <vcaf:RateCardRef>Bridged Network Rate</vcaf:RateCardRef>

  <vcaf:Created>2012-01-16T08:41:36.104-08:00</vcaf:Created>

  <vcaf:Modified>2012-01-16T08:41:36.104-08:00</vcaf:Modified>

  <vcaf:Owner type="application/vnd.vmware.vcloud.vcaf.serviceprovider+xml"
href="https://localhost/api/extension/vcaf/serviceProvider/00000000-0000-
0000-0000-000000000000"/>

  <vcaf:ProductTypeRef
type="application/vnd.vmware.vcloud.vcaf.producttype+xml" id="94d66f49-61b4-
48d6-9a00-252d26d4a51e"
href="https://localhost/api/extension/vcaf/productType/94d66f49-61b4-48d6-
9a00-252d26d4a51e"/>

  <vcaf:Scope>Global</vcaf:Scope>

  <vcaf:Inventory>

    <vcaf:Allocation>2147483647</vcaf:Allocation>

    <vcaf:RemainingCapacity>2147483647</vcaf:RemainingCapacity>

    <vcaf:ResellerDelegations>0</vcaf:ResellerDelegations>

    <vcaf:CustomerAllocations>0</vcaf:CustomerAllocations>

  </vcaf:Inventory>

  <vcaf:Configuration
type="application/vnd.vmware.vcloud.vcaf.producttemplateconfig+xml"
href="https://localhost/api/extension/vcaf/productTemplateConfig/fd32e0ff-
a02b-45d9-86d0-d904b7b22347">

    <vcaf:ConfigItem description="Contains reference to parent network."
displayName="Parent Network" type="xs:anyURI">

      <vcaf:key>orgnet.parentNetwork</vcaf:key>

      <vcaf:value>https://api.myself.com/api/admin/network/f8035663-a56b-
40a0-ba8c-06dcd3e7e43f</vcaf:value>

    </vcaf:ConfigItem>

  </vcaf:Configuration>

</ProductTemplateType>
```

Success
response

201 Created

2.4 Delete a product template

Service Providers can completely purge a product template and all its associated data. Only an inactive product template can be deleted.

Role(s)	ServiceProviderUserRole
Operation	DELETE /api/extension/vcaf/productTemplate/{id}
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.error+xml
Success response	204 No Content

2.5 Activate a product template

Service Providers can activate an inactive product template. This is an idempotent operation.

Role(s)	ServiceProviderUserRole
Operation	POST /api/extension/vcaf/productTemplate/{id}/action/activate
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.error+xml
Success response	204 No Content

2.6 Search and find product templates

Service Providers can search and list all product templates. The result set should provide all details for each list item. Reseller hierarchy constraints should be applied to all result sets.

Role(s)	ServiceProviderUserRole, ResellerRole
Operation	GET /api/extension/vcaf/query?type=application/vnd.vmware.vcloud.vcaf.productTemplate+xml [¶m] [¶m ...] [&filter]
Content-Type	n/a

Accept-Type	application/vnd.vmware.vcloud.vcaf.queryresultrecords+xml, error+xml+xml, application/vnd.vmware.vcloud.vcaf.error+xml
Sample response	<pre><QueryResultRecordsType total="10" page="1" xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tns1="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xml="https://www.w3.org/XML/1998/namespace" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"> <vcaf:ProductTemplateRecord type="application/vnd.vmware.vcloud.vcaf.queryresultproducttemplaterecord+xml" id="8a48990c-29a7-48ee-96e3-2cdedb80d70d" href="https://localhost/api/extension/vcaf/productTemplate/8a48990c-29a7- 48ee-96e3-2cdedb80d70d"> <vcaf:Name>Bridged Network</vcaf:Name> <vcaf:Description>A basic bridged network.</vcaf:Description> <vcaf:Status>OfferingActive</vcaf:Status> <vcaf:SKU>b5382f05-c444-4a44-a8d7-291989f57be9</vcaf:SKU> <vcaf:RateCardRef>Bridged Network Rate</vcaf:RateCardRef></pre>
Success response	200 OK

2.7 Search and find products by customer

Service providers and resellers can search for and list all products that they are entitled to sell.

The result set should provide all details for each list item. Reseller hierarchy constraints should be applied to all result sets.

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	GET /api/extension/vcaf/query?type=application/vnd.vmware.vcloud.vcaf.product+xml[¶m][¶m ...][&filter]
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.queryresultrecord+xml, application/vnd.vmware.vcloud.vcaf.error+xml
Sample response	<pre> <QueryResultRecordsxmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tns1="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" total="1" page="1"> <vcaf:ProductRecord name="Basic Bridged Network" type="application/vnd.vmware.vcloud.vcaf.queryresultproductrecord+xml" id="6c4f1a4e-7cb5-47ce-9e92-59008cd700b4" href="https://localhost/api/extension/vcaf/product/6c4f1a4e-7cb5-47ce-9e92-59008cd700b4"> <vcaf:CreatedTimestamp>2012-01-16T15:06:44.541-08:00</vcaf:CreatedTimestamp> <vcaf:ResourceUri>https://api.myself.com/api/vcaf/extension/orgNetwork/6c4f1a4e-7cb5-47ce-9e92-59008cd700b4</vcaf:ResourceUri> <vcaf:ProductTemplateRef href="https://localhost/api/extension/vcaf/productTemplate/8a48990c-29a7-48ee-96e3-2cdedb80d70d"/> </vcaf:ProductRecord> </QueryResultRecordsType> </pre>
Success Response	200 OK

3. vCloud Integration Manager API—Resellers

This section summarizes these vCloud Integration Manager API reseller operations:

- [Create a reseller](#)
- [Assign products to reseller](#)
- [Update reseller](#)
- [List resellers](#)
- [Create reseller administrator accounts](#)

3.1 Create a reseller

Allows a service provider operations team to onboard new reseller accounts.

In addition to the reseller data the UI or API should also accept the first administrator information (Name, Username, Email Address and Password) and set up the user account in vCloud Integration Manager.

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	POST /api/extension/vcaf/resellers
Content-Type	resellerParams+xml

Sample request XML	<pre> <ResellerParamsType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"> <vcaf:Name>Paul's Reseller</vcaf:Name> <vcaf:Description>A high-quality reseller indeed</vcaf:Description> <vcaf:AccountNumber>abc123</vcaf:AccountNumber> <vcaf:ContactInfo> <vcaf:Email>user@example.com</vcaf:Email> <vcaf:Voice>555-555-1212</vcaf:Voice> <vcaf:Fax/> </vcaf:ContactInfo> <vcaf:CanCreateSubReseller>false</vcaf:CanCreateSubReseller> <vcaf:CanCreatePackage>false</vcaf:CanCreatePackage> <vcaf:UserParams> <vcaf:Username>psmith</vcaf:Username> <vcaf:Password>password</vcaf:Password> <vcaf:ContactInfo> <vcaf:FirstName>Paul</vcaf:FirstName> <vcaf:LastName>Smith</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> </vcaf:ContactInfo> </vcaf:UserParams> </ResellerParamsType> </pre>
Accept-Type	<pre> application/vnd.vmware.vcloud.vcaf.reseller+xml, application/vnd.vmware.vcloud.vcaf.error+xml </pre>

Sample response	<pre> <ResellerType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class1="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="b33b21fc-a5bb- 43bd-afd9-0f0b2b0e6ad8" name="Paul's Reseller" href="https://localhost/api/extension/vcaf/reseller/b33b21fc-a5bb-43bd-afd9- 0f0b2b0e6ad8"> <vcaf:AccountNumber>abc123</vcaf:AccountNumber> <vcaf:ContactInfo> <vcaf:Email>user@example.com</vcaf:Email> <vcaf:Voice>555-555-1212</vcaf:Voice> <vcaf:Fax/> </vcaf:ContactInfo> <vcaf:CanCreateSubReseller>false</vcaf:CanCreateSubReseller> <vcaf:CanCreatePackage>false</vcaf:CanCreatePackage> <vcaf:Enabled>true</vcaf:Enabled> <vcaf:Users type="application/vnd.vmware.vcloud.vcaf.userslist+xml"> <vcaf:User name="psmith" type="application/vnd.vmware.vcloud.vcaf.user+xml" href="https://localhost/api/extension/vcaf/user/fd78ab4b-d304-4752-be67- bb01cf3e693a"/> </vcaf:Users> <vcaf:ProductTemplates/> </ResellerType> </pre>
Success Response	201 Created

3.2 Assign products to reseller

Allows a service provider operations team to assign various product templates that can be sold by the reseller. (Service provider can *delete* products from the reseller by setting the quantity as “0” if the product is not sold to any sub-reseller or customer.)

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	POST /api/extension/vcaf/reseller/{id}/action/setProductTemplates
Content-Type	application/vnd.vmware.vcloud.vcaf.producttemplateallocationlist+xml

Sample request XML	<pre> <ProductTemplateAllocationListType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tns1="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"> <vcaf:ProductTemplateAllocation> <vcaf:Quantity>10</vcaf:Quantity> <vcaf:SourceProductTemplate href="https://localhost/api/extension/vcaf/productTemplate/34aef056-56fe- 4664-8a82-17fa84654757"/> </vcaf:ProductTemplateAllocation> </ProductTemplateAllocationListType> </pre>
Accept- Type	application/vnd.vmware.vcloud.vcaf.errorlist+xml

Sample
response

```
<ResellerType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common"
xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_VirtualSystemSettingData"
xmlns:class1="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_ResourceAllocationSettingData"
xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1"
xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1"
xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1"
xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1"
xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl"
xmlns:tnsl="https://www.vmware.com/vcloud/versions"
xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5"
xmlns:vcaf="https://www.vmware.com/vcaf/v1"
xmlns:vcloud="https://www.vmware.com/vcloud/v1.5"
xmlns:xs="https://www.w3.org/2001/XMLSchema"
xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="11111111-1111-
1111-1111-111111111111" name="vcafsysteem"
type="application/vnd.vmware.vcloud.vcaf.reseller+xml"
href="https://localhost/api/extension/vcaf/reseller/11111111-1111-1111-1111-
111111111111">

  <vcaf:Description>sample reseller</vcaf:Description>

  <vcaf:AccountNumber>abc123</vcaf:AccountNumber>

  <vcaf:ContactInfo>

    <vcaf:FirstName>CEO</vcaf:FirstName>

    <vcaf:LastName>Steve</vcaf:LastName>

    <vcaf:Email>user@example.com</vcaf:Email>

    <vcaf:Voice>555-555-1212</vcaf:Voice>

    <vcaf:Fax>555-555-1313</vcaf:Fax>

  </vcaf:ContactInfo>

  <vcaf:CanCreateSubReseller>true</vcaf:CanCreateSubReseller>

  <vcaf:CanCreatePackage>false</vcaf:CanCreatePackage>

  <vcaf:Enabled>true</vcaf:Enabled>

  <vcaf:Users>

    <vcaf:User href="api/extension/vcaf/user/11111111-1111-1111-1111-
111111111111"/>

  </vcaf:Users>

  <vcaf:ProductTemplates>

    <vcaf:ProductTemplateAllocation>

      <vcaf:Quantity>10</vcaf:Quantity>

      <vcaf:SourceProductTemplate
href="api/extension/vcaf/productTemplate/34aef056-56fe-4664-8a82-
17fa84654757"/>

    </vcaf:ProductTemplateAllocation>

  </vcaf:ProductTemplates>

</ResellerType>
```

Success
Response

200 OK

3.3 Update reseller

Service providers can change various reseller data. Additionally administrators can:

- Add new product templates
- Remove existing product templates, if the product template has not been onboarded for any customer or sold to any sub-reseller
- Update capacity, subject to current allocations as the lower limit

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	PUT /api/extension/vcaf/reseller/{id}
Content-Type	application/vnd.vmware.vcloud.vcaf.resellersettings+xml
Sample request XML	<pre> <ResellerSettingsType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"> <vcaf:Description>sample reseller</vcaf:Description> <vcaf:AccountNumber>abc123</vcaf:AccountNumber> <vcaf:ContactInfo> <vcaf:Email>user@example.com</vcaf:Email> <vcaf:Voice>555-555-1212</vcaf:Voice> <vcaf:Fax>555-555-1313</vcaf:Fax> </vcaf:ContactInfo> <vcaf:CanCreateSubReseller>false</vcaf:CanCreateSubReseller> <vcaf:CanCreatePackage>false</vcaf:CanCreatePackage> </ResellerSettingsType> </pre>
Accept-Type	application/vnd.vmware.vcloud.vcaf.reseller+xml, application/vnd.vmware.vcloud.vcaf.error+xml

Sample response	<pre> <ResellerType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="11111111-1111- 1111-1111-111111111111" name="vcafsystem" type="application/vnd.vmware.vcloud.vcaf.reseller+xml" href="localhost/api/extension/vcaf/reseller/11111111-1111-1111-1111- 111111111111"> <vcaf:Description>sample reseller</vcaf:Description> <vcaf:AccountNumber>abc123</vcaf:AccountNumber> <vcaf:ContactInfo> <vcaf:Email>user@example.com</vcaf:Email> <vcaf:Voice>555-555-1212</vcaf:Voice> <vcaf:Fax>555-555-1313</vcaf:Fax> </vcaf:ContactInfo> <vcaf:CanCreateSubReseller>false</vcaf:CanCreateSubReseller> <vcaf:CanCreatePackage>false</vcaf:CanCreatePackage> <vcaf:Enabled>true</vcaf:Enabled> <vcaf:Users> <vcaf:User href="api/extension/vcaf/user/11111111-1111-1111-1111- 111111111111"/> </vcaf:Users> <vcaf:ProductTemplates/> </ResellerType> </pre>
Success Response	200 OK

3.4 List resellers

Service provider or reseller administrators can list/find their direct reseller accounts.

Users will get this data for each reseller:

- Name
- Status
- Contact email
- Sub-resellers
- Number of customers
- Products

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	GET /api/extension/vcaf/query?type=application/vnd.vmware.vcloud.vcaf.resellerlist+xml [¶m] [¶m ...] [&filter]
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.queryresultrecords+xml, application/vnd.vmware.vcloud.vcaf.error+xml

Sample response	<pre> <QueryResultRecords page="1" pageSize="25" total="1" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xml="https://www.w3.org/XML/1998/namespace" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common"> <vcaf:ResellerRecord href="https://localhost/api/extension/vcaf/reseller/11111111-1111-1111-1111-111111111111" id="11111111-1111-1111-1111-111111111111" type="application/vnd.vmware.vcloud.vcaf.queryresultresellerrecord+xml" name="vcafssystem"> <vcaf:Description>sample reseller</vcaf:Description> <vcaf:AccountNumber>abc123</vcaf:AccountNumber> <vcaf:ContactInfo> <vcaf:FirstName>CEO</vcaf:FirstName> <vcaf:LastName>Steve</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> <vcaf:Voice>555-555-1212</vcaf:Voice> <vcaf:Fax>555-555-1313</vcaf:Fax> </vcaf:ContactInfo> <vcaf:CanCreateSubReseller>true</vcaf:CanCreateSubReseller> <vcaf:CanCreatePackage>false</vcaf:CanCreatePackage> <vcaf:Enabled>true</vcaf:Enabled> <vcaf:Users> <vcaf:User href="https://localhost/api/extension/vcaf/user/11111111-1111-1111-1111-111111111111"></vcaf:User> </vcaf:Users> <vcaf:ProductTemplates> <vcaf:ProductTemplateAllocation> <vcaf:Quantity>10</vcaf:Quantity> <vcaf:SourceProductTemplate href="https://localhost/api/extension/vcaf/productTemplate/34aef056-56fe-4664-8a82-17fa84654757"> </vcaf:SourceProductTemplate> </vcaf:ProductTemplateAllocation> </vcaf:ProductTemplates> </vcaf:ResellerRecord> </QueryResultRecordsType> </pre>
Success Response	200 OK

3.5 Create reseller administrator accounts

Reseller administrators can create reseller administrator accounts, including:

- Username
- Full name
- Contact email
- Password

Role(s)	ResellerUserRole
Operation	POST /api/extension/vcaf/reseller/{id}/users
Content-Type	application/vnd.vmware.vcloud.vcaf.userparams+xml
Sample request XML	<pre> <VcafUserParamsType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"> <vcaf:Username>psmith</vcaf:Username> <vcaf:Password>password</vcaf:Password> <vcaf:ContactInfo> <vcaf:FirstName>Paul</vcaf:FirstName> <vcaf:LastName>Smith</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> </vcaf:ContactInfo> </VcafUserParamsType> </pre>
Accept-Type	application/vnd.vmware.vcloud.vcaf.user+xml, application/vnd.vmware.vcloud.vcaf.error+xml

Sample response	<pre><VcafUserType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="f4500ad8-0fda- 4cdc-a7d3-c0d16162ec09" name="psmith" type="application/vnd.vmware.vcloud.vcaf.user+xml" href="https://localhost/api/extension/vcaf/user/f4500ad8-0fda-4cdc-a7d3- c0d16162ec09"> <vcaf:Role>ServiceProviderUserRole</vcaf:Role> <vcaf:Company href="https://localhost/api/extension/vcaf/reseller/00000000- 0000-0000-0000-000000000000"/> <vcaf:ContactInformation> <vcaf:FirstName>Paul</vcaf:FirstName> <vcaf:LastName>Smith</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> </vcaf:ContactInformation> </VcafUserType></pre>
Success Response	201 Created

4. vCloud Integration Manager API—Customers

This section summarizes these vCloud Integration Manager API customer operations:

- [Create a customer](#)
- [Modify a customer](#)
- [Add products to customer](#)
- [Remove products from customer](#)
- [List customers](#)
- [Delete customer](#)

4.1 Create a customer

Service provider or reseller administrators can create a customer. In addition to the customer data the UI or API should also accept the first administrator information (name, username, email address and password) and set up the user account.

The workflow creates the customer and administrator objects.

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	POST /api/extension/vcaf/customers
Content-Type	application/vnd.vmware.vcloud.vcaf.customerparams+xml

Sample
request
XML

```
<CustomerParamsType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common"
xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_VirtualSystemSettingData"
xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_ResourceAllocationSettingData"
xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1"
xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1"
xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1"
xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1"
xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl"
xmlns:tns1="https://www.vmware.com/vcloud/versions"
xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5"
xmlns:vcaf="https://www.vmware.com/vcaf/v1"
xmlns:vcloud="https://www.vmware.com/vcloud/v1.5"
xmlns:xs="https://www.w3.org/2001/XMLSchema"
xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance">

  <vcaf:Name>Paul'sFishingGear</vcaf:Name>

  <vcaf:Description>Ventura's Best Fishing Supply Company</vcaf:Description>

  <vcaf:AccountNumber>12345678</vcaf:AccountNumber>

  <vcaf:ContactInfo>

    <vcaf:Email>user@example.com</vcaf:Email>

    <vcaf:Voice>555-555-1212</vcaf:Voice>

    <vcaf:Fax>555-555-1313</vcaf:Fax>

  </vcaf:ContactInfo>

  <vcaf:UserParams>

    <vcaf:Username>psmith</vcaf:Username>

    <vcaf:Password>password</vcaf:Password>

    <vcaf:ContactInfo>

      <vcaf:FirstName>Paul</vcaf:FirstName>

      <vcaf:LastName>Smith</vcaf:LastName>

      <vcaf:Email>user@example.com</vcaf:Email>

    </vcaf:ContactInfo>

  </vcaf:UserParams>

</CustomerParamsType>
```

Accept-
Type

```
application/vnd.vmware.vcloud.vcaf.customer+xml,
application/vnd.vmware.vcloud.vcaf.error+xml
```

**Sample
response**

```
<CustomerType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common"
xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_VirtualSystemSettingData"
xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_ResourceAllocationSettingData"
xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1"
xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1"
xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1"
xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1"
xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl"
xmlns:tns1="https://www.vmware.com/vcloud/versions"
xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5"
xmlns:vcaf="https://www.vmware.com/vcaf/v1"
xmlns:vcloud="https://www.vmware.com/vcloud/v1.5"
xmlns:xs="https://www.w3.org/2001/XMLSchema"
xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="465a2c82-9132-438f-9ec1-
bd4b25718a26" name="Paul'sFishingGear"
href="https://localhost/api/extension/vcaf/customer/465a2c82-9132-438f-9ec1-
bd4b25718a26">

  <vcaf:AccountNumber>12345678</vcaf:AccountNumber>

  <vcaf:ContactInfo>

    <vcaf:Email>user@example.com</vcaf:Email>

    <vcaf:Voice>555-555-1212</vcaf:Voice>

    <vcaf:Fax>555-555-1313</vcaf:Fax>

  </vcaf:ContactInfo>

  <vcaf:Status>CustomerActive</vcaf:Status>

  <vcaf:VcdOrg name="Paul'sFishingGear-30c435d0"
type="application/vnd.vmware.admin.organization+xml" id="urn:vcloud:org:bla71922-a926-
4b7f-915a-6b51c97b0a2a" href="https://172.16.200.220/api/admin/org/bla71922-a926-4b7f-
915a-6b51c97b0a2a"/>

    <vcaf:VcdOrgUI name="Paul'sFishingGear-30c435d0"
href="https://172.16.200.220/cloud/org/Paul'sFishingGear-30c435d0"/>

  <vcaf:Products/>

</CustomerType>
```

**Success
Response** 201 Created

4.2 Modify a customer

Service provider or reseller administrators can change various customer data, such as setting start date/end dates for existing products.

Task management should record all changes (old value and new values) on successful completion of this operation.

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	PUT /api/extension/vcaf/customer/{id}
Content-Type	application/vnd.vmware.vcloud.vcaf.customersettings+xml

Sample request XML	<pre> <CustomerSettingsType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tns1="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"> <vcaf:Description>Ventura's Best Fishing Supply Company</vcaf:Description> <vcaf:AccountNumber>12345678</vcaf:AccountNumber> <vcaf:ContactInfo> <vcaf:Email>user@example.com</vcaf:Email> <vcaf:Voice>555-555-1919</vcaf:Voice> <vcaf:Fax>555-555-1313</vcaf:Fax> </vcaf:ContactInfo> </CustomerSettingsType> </pre>
Accept-Type	<pre> application/vnd.vmware.vcloud.vcaf.customer+xml, application/vnd.vmware.vcloud.vcaf.error+xml </pre>
Sample response	<pre> <CustomerType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tns1="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="b7b9a656-4d94-4d2d-838e- 77e48960905b" name="Paul'sFishingGear" href="https://localhost/api/extension/vcaf/customer/b7b9a656-4d94-4d2d-838e- 77e48960905b"> <vcaf:AccountNumber>12345678</vcaf:AccountNumber> <vcaf:ContactInfo> <vcaf:Email>user@example.com</vcaf:Email> <vcaf:Voice>555-555-1212</vcaf:Voice> <vcaf:Fax>555-555-1313</vcaf:Fax> </vcaf:ContactInfo> <vcaf:Status>CustomerActive</vcaf:Status> <vcaf:VcdOrg name="Paul'sFishingGear-ff6378c5" type="application/vnd.vmware.admin.organization+xml" id="urn:vcloud:org:7b4d0420-d863- 4614-bbd7-80353f800c3a" href="https://172.16.200.220/api/admin/org/7b4d0420-d863-4614- bbd7-80353f800c3a"/> <vcaf:VcdOrgUI name="Paul'sFishingGear-ff6378c5" href="https://172.16.200.220/cloud/org/Paul'sFishingGear-ff6378c5"/> <vcaf:Products/> </CustomerType> </pre>
Success Response	200 OK

4.3 Add products to customer

Service provider or reseller administrators can add new products.

Task management should record all changes (old value and new values) on successful completion of this operation.

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	POST /api/extension/vcaf/customer/{id}/action/addProducts
Content-Type	application/vnd.vmware.vcloud.vcaf.productallocationlist+xml
Sample request XML	<pre> <ProductAllocationListType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsst1" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"> <vcaf:ProductAllocation> <vcaf:Quantity>1</vcaf:Quantity> <vcaf:SourceProductTemplate href="https://localhost/api/extension/vcaf/productTemplate/5ba43f76-e9ba-4fab-a1b9-3bb10721ecf3"/> <vcaf:Duration>P30D</vcaf:Duration> </vcaf:ProductAllocation> <vcaf:ProductAllocation> <vcaf:Quantity>2</vcaf:Quantity> <vcaf:SourceProductTemplate href="https://localhost/api/extension/vcaf/productTemplate/434dfff0-15af-467a-8e3b-604cf88004b5"/> <vcaf:Duration>P30D</vcaf:Duration> </vcaf:ProductAllocation> </ProductAllocationListType> </pre>
Accept-Type	application/vnd.vmware.vcloud.vcaf.customer+xml, application/vnd.vmware.vcloud.vcaf.error+xml

Sample
response

```
<CustomerType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common"
xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_VirtualSystemSettingData"
xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-
schema/2/CIM_ResourceAllocationSettingData"
xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1"
xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1"
xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1"
xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1"
xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl"
xmlns:tns1="https://www.vmware.com/vcloud/versions"
xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5"
xmlns:vcac="https://www.vmware.com/vcac/v1"
xmlns:vcloud="https://www.vmware.com/vcloud/v1.5"
xmlns:xs="https://www.w3.org/2001/XMLSchema"
xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="b7b9a656-4d94-4d2d-838e-
77e48960905b" name="Paul'sFishingGear"
href="https://localhost/api/extension/vcac/customer/b7b9a656-4d94-4d2d-838e-
77e48960905b">

  <vcac:Description>Ventura's Best Fishing Supply Company</vcac:Description>

  <vcac:Tasks>

    <vcloud:Task id="5f0c84b4-388b-48e6-a7e8-2316d596e112" expiryTime="2012-04-
19T13:42:14.479-07:00" href="https://localhost/api/extension/vcac/task/5f0c84b4-388b-
48e6-a7e8-2316d596e112" type="application/vnd.vmware.vcloud.vcac.task+xml"
startTime="2012-01-19T13:42:14.479-08:00" status="queued"
operationName="customerAddProduct" operation="add-product-434dff0-15af-467a-8e3b-
604cf88004b5">

      <vcloud:Description>add 2 isolated network template</vcloud:Description>

      <vcloud:Owner name="Paul'sFishingGear"
type="application/vnd.vmware.vcloud.vcac.customer+xml" id="b7b9a656-4d94-4d2d-838e-
77e48960905b" href="https://localhost/api/extension/vcac/customer/b7b9a656-4d94-4d2d-
838e-77e48960905b"/>

      <vcloud:User type="application/vnd.vmware.vcloud.vcac.user+xml" id="00000000-0000-
0000-0000-000000000000" href="https://localhost/api/extension/vcac/user/00000000-0000-
0000-0000-000000000000"/>

    </vcloud:Task>

    <vcloud:Task id="47db0800-0b64-404d-b732-7e46ad212e9b" expiryTime="2012-04-
19T13:42:14.508-07:00" href="https://localhost/api/extension/vcac/task/47db0800-0b64-
404d-b732-7e46ad212e9b" type="application/vnd.vmware.vcloud.vcac.task+xml"
startTime="2012-01-19T13:42:14.508-08:00" status="queued"
operationName="customerAddProduct" operation="add-product-5ba43f76-e9ba-4fab-alb9-
3bb10721ecf3">

      <vcloud:Description>add 1 allocation vapp vdc template</vcloud:Description>

      <vcloud:Owner name="Paul'sFishingGear"
type="application/vnd.vmware.vcloud.vcac.customer+xml" id="b7b9a656-4d94-4d2d-838e-
77e48960905b" href="https://localhost/api/extension/vcac/customer/b7b9a656-4d94-4d2d-
838e-77e48960905b"/>

      <vcloud:User type="application/vnd.vmware.vcloud.vcac.user+xml" id="00000000-0000-
0000-0000-000000000000" href="https://localhost/api/extension/vcac/user/00000000-0000-
0000-0000-000000000000"/>

    </vcloud:Task>

  </vcac:Tasks>

  <vcac:AccountNumber>12345678</vcac:AccountNumber>

  <vcac:ContactInfo>

    <vcac:Email>user@example.com</vcac:Email>

    <vcac:Voice>555-555-1212</vcac:Voice>

    <vcac:Fax>555-555-1313</vcac:Fax>

  </vcac:ContactInfo>

  <vcac:Status>CustomerActive</vcac:Status>

  <vcac:VcdOrg name="Paul'sFishingGear-ff6378c5"
type="application/vnd.vmware.admin.organization+xml" id="urn:vcloud:org:7b4d0420-d863-
4614-bbd7-80353f800c3a" href="https://172.16.200.220/api/admin/org/7b4d0420-d863-4614-
bbd7-80353f800c3a"/>

  <vcac:VcdOrgUI name="Paul'sFishingGear-ff6378c5"
href="https://172.16.200.220/cloud/org/Paul'sFishingGear-ff6378c5"/>

  <vcac:Products/>

</CustomerType>
```

Success 200 OK
Response

4.4 Remove products from customer

Service provider or reseller administrators can remove existing products for customers.

Removing existing product should delete all data and free up resources.

Task management should record all changes (old value and new values) on successful completion of this operation.

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	POST /api/extension/vcaf/customer/{id}/action/removeProducts
Content-Type	application/vnd.vmware.vcloud.vcaf.productallocationlist+xml
Sample request XML	<pre><ProductRemovalListType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tns1="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"> <vcaf:Product type="application/vnd.vmware.vcloud.vcaf.product+xml" href="https://localhost/api/extension/vcaf/product/1a16249f-c892-4d46-a8e4-32f05b98247e"/> </ProductRemovalListType></pre>
Accept-Type	application/vnd.vmware.vcloud.vcaf.customer+xml, application/vnd.vmware.vcloud.vcaf.error+xml
Sample response	<pre><CustomerType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tns1="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="b7b9a656-4d94-4d2d-838e-77e48960905b" name="Paul'sFishingGear" href="https://localhost/api/extension/vcaf/customer/b7b9a656-4d94-4d2d-838e-77e48960905b"></pre>

Sample
response
(continued)

```
<vcf:Description>Ventura's Best Fishing Supply Company</vcf:Description>

<vcf:Tasks>

  <vcloud:Task id="eab566b2-c54b-4c39-aa07-7a11705c3c9e" expiryTime="2012-04-
19T13:55:50.430-07:00" href="https://localhost/api/extension/vcaf/task/eab566b2-c54b-
4c39-aa07-7a11705c3c9e" type="application/vnd.vmware.vcloud.vcaf.task+xml"
startTime="2012-01-19T13:55:50.430-08:00" status="queued"
operationName="customerRemoveProduct" operation="remove-product-1a16249f-c892-4d46-a8e4-
32f05b98247e">

    <vcloud:Description>remove product Paul'sFishingGear-isolatedNet-
caf0b925</vcloud:Description>

    <vcloud:Owner type="application/vnd.vmware.vcloud.vcaf.customer+xml" id="b7b9a656-
4d94-4d2d-838e-77e48960905b"
href="https://localhost/api/extension/vcaf/customer/b7b9a656-4d94-4d2d-838e-
77e48960905b"/>

    <vcloud:User type="application/vnd.vmware.vcloud.vcaf.user+xml" id="00000000-0000-
0000-0000-000000000000" href="https://localhost/api/extension/vcaf/user/00000000-0000-
0000-0000-000000000000"/>

  </vcloud:Task>
</vcf:Tasks>

<vcf:AccountNumber>12345678</vcf:AccountNumber>

<vcf:ContactInfo>

  <vcf:Email>user@example.com</vcf:Email>

  <vcf:Voice>555-555-1212</vcf:Voice>

  <vcf:Fax>555-555-1313</vcf:Fax>

</vcf:ContactInfo>

<vcf:Status>CustomerActive</vcf:Status>

<vcf:VcdOrg name="Paul'sFishingGear-ff6378c5"
type="application/vnd.vmware.admin.organization+xml" id="urn:vcloud:org:7b4d0420-d863-
4614-bbd7-80353f800c3a" href="https://172.16.200.220/api/admin/org/7b4d0420-d863-4614-
bbd7-80353f800c3a"/>

<vcf:VcdOrgUI name="Paul'sFishingGear-ff6378c5"
href="https://172.16.200.220/cloud/org/Paul'sFishingGear-ff6378c5"/>

<vcf:Products>

  <vcf:Product name="Paul'sFishingGear-isolatedNet-caf0b925"
type="application/vnd.vmware.vcloud.vcaf.product+xml" id="1a16249f-c892-4d46-a8e4-
32f05b98247e" href="https://localhost/api/extension/vcaf/product/1a16249f-c892-4d46-
a8e4-32f05b98247e"/>

  <vcf:Product name="Paul'sFishingGear-isolatedNet-140c39c4"
type="application/vnd.vmware.vcloud.vcaf.product+xml" id="712c6743-f451-4391-b3e5-
ca44947b39f2" href="https://localhost/api/extension/vcaf/product/712c6743-f451-4391-
b3e5-ca44947b39f2"/>

  <vcf:Product name="Paul'sFishingGear-allocationVappVdc-eda70dbe"
type="application/vnd.vmware.vcloud.vcaf.product+xml" id="6580bb31-72b0-4c76-9bbb-
c9742810d9bf" href="https://localhost/api/extension/vcaf/product/6580bb31-72b0-4c76-
9bbb-c9742810d9bf"/>

</vcf:Products>

</CustomerType>
```

Success
Response

200 OK

4.5 List customers

Service provider or reseller administrators can list/find their direct customer accounts.

The input parameters should include:

- Search query string, optional (when not set the results should list all products)
- Filter criterion based on state of the product, or product types
- Page size
- An offset or page number

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	GET /api/etxtension/vcaf/query?type= application/vnd.vmware.vcloud.vcaf.customerlist+xml [¶m][¶m ...][&filter]
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.queryresultrecords+xml, application/vnd.vmware.vcloud.vcaf.error+xml
Sample response	<pre> <QueryResultRecords page="1" pageSize="1000" total="1" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xml="https://www.w3.org/XML/1998/namespace" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:tns1="https://www.vmware.com/vcloud/versions" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common"> <vcaf:CustomerRecord href="https://localhost/api/extension/vcaf/customer/b7b9a656-4d94-4d2d-838e-77e48960905b" id="b7b9a656-4d94-4d2d-838e-77e48960905b" type="application/vnd.vmware.vcloud.vcaf.queryresultcustomerrecord+xml" name="Paul'sFishingGear"> <vcaf:Description>Ventura's Best Fishing Supply Company</vcaf:Description> <vcaf:Tasks> <vcloud:Task operation="add-product-434dfff0-15af-467a-8e3b-604cf88004b5" endTime="2012-01-19T13:42:16.606-08:00" operationName="customerAddProduct" status="success" startTime="2012-01-19T13:42:14.479-08:00" type="application/vnd.vmware.vcloud.vcaf.task+xml" href="https://localhost/api/extension/vcaf/task/5f0c84b4-388b-48e6-a7e8-2316d596e112" expiryTime="2012-04-19T13:42:14.479-07:00" id="5f0c84b4-388b-48e6-a7e8-2316d596e112"> <vcloud:Description>add 2 isolated network template</vcloud:Description> <vcloud:Owner href="https://localhost/api/extension/vcaf/customer/b7b9a656-4d94-4d2d-838e-77e48960905b" id="b7b9a656-4d94-4d2d-838e-77e48960905b" type="application/vnd.vmware.vcloud.vcaf.customer+xml" name="Paul'sFishingGear"> </vcloud:Owner> <vcloud>User </pre>

Sample
response
(continued)

```

      href="https://localhost/api/extension/vcaf/user/00000000-0000-0000-0000-000000000000" id="00000000-0000-0000-0000-000000000000"
      type="application/vnd.vmware.vcloud.vcaf.user+xml">
    </vcloud:User>

    <vcloud:Progress>100</vcloud:Progress>

  </vcloud:Task>

  <vcloud:Task

    operation="add-product-5ba43f76-e9ba-4fab-a1b9-3bb10721ecf3" endTime="2012-01-19T13:42:17.654-08:00" operationName="customerAddProduct" status="success"
    startTime="2012-01-19T13:42:14.508-08:00"
    type="application/vnd.vmware.vcloud.vcaf.task+xml"
    href="https://localhost/api/extension/vcaf/task/47db0800-0b64-404d-b732-7e46ad212e9b"
    expiryTime="2012-04-19T13:42:14.508-07:00" id="47db0800-0b64-404d-b732-7e46ad212e9b">

    <vcloud:Description>add 1 allocation vapp vdc template</vcloud:Description>

    <vcloud:Owner

      href="https://localhost/api/extension/vcaf/customer/b7b9a656-4d94-4d2d-838e-77e48960905b" id="b7b9a656-4d94-4d2d-838e-77e48960905b"
      type="application/vnd.vmware.vcloud.vcaf.customer+xml" name="Paul'sFishingGear">
    </vcloud:Owner>

    <vcloud:User

      href="https://localhost/api/extension/vcaf/user/00000000-0000-0000-0000-000000000000" id="00000000-0000-0000-0000-000000000000"
      type="application/vnd.vmware.vcloud.vcaf.user+xml">
    </vcloud:User>

    <vcloud:Progress>100</vcloud:Progress>

  </vcloud:Task>

  <vcloud:Task

    operation="add-product-110abb62-5815-4171-884b-d85a2604e3e8" endTime="2012-01-19T13:46:40.375-08:00" operationName="customerAddProduct" status="error"
    startTime="2012-01-19T13:46:32.456-08:00"
    type="application/vnd.vmware.vcloud.vcaf.task+xml"
    href="https://localhost/api/extension/vcaf/task/84632dad-bb0b-43f5-9770-53eb21e9249e"
    expiryTime="2012-04-19T13:46:32.456-07:00" id="84632dad-bb0b-43f5-9770-53eb21e9249e">

    <vcloud:Description>add 5 reservation pool vdc template</vcloud:Description>

    <vcloud:Owner

      href="https://localhost/api/extension/vcaf/customer/b7b9a656-4d94-4d2d-838e-77e48960905b" id="b7b9a656-4d94-4d2d-838e-77e48960905b"
      type="application/vnd.vmware.vcloud.vcaf.customer+xml" name="Paul'sFishingGear">
    </vcloud:Owner>

    <vcloud>Error message="this operation was rolled back as part of a larger operation that failed" majorErrorCode="400" minorErrorCode="rollback">

  </vcloud>Error>

  <vcloud:User

    href="https://localhost/api/extension/vcaf/user/00000000-0000-0000-0000-000000000000" id="00000000-0000-0000-0000-000000000000"
    type="application/vnd.vmware.vcloud.vcaf.user+xml">
  </vcloud:User>

  <vcloud:Progress>100</vcloud:Progress>

</vcloud:Task>

<vcloud:Task

  operation="remove-product-nonexistent" endTime="2012-01-19T13:53:27.316-08:00"
  operationName="customerRemoveProduct" status="success" startTime="2012-01-19T13:53:27.302-08:00" type="application/vnd.vmware.vcloud.vcaf.task+xml"
  href="https://localhost/api/extension/vcaf/task/033a01d2-e5a3-4a0b-ba8b-7004e9b0eebc"
  expiryTime="2012-04-19T13:53:27.302-07:00" id="033a01d2-e5a3-4a0b-ba8b-7004e9b0eebc">

```

Sample
response
(continued)

```
<vcloud:Description>remove product (product not found)</vcloud:Description>

<vcloud:Owner
  href="https://localhost/api/extension/vcaf/customer/b7b9a656-4d94-4d2d-838e-
77e48960905b" id="b7b9a656-4d94-4d2d-838e-77e48960905b"
  type="application/vnd.vmware.vcloud.vcaf.customer+xml">
</vcloud:Owner>

  <vcloud:User
    href="https://localhost/api/extension/vcaf/user/00000000-0000-0000-0000-
000000000000" id="00000000-0000-0000-0000-000000000000"
    type="application/vnd.vmware.vcloud.vcaf.user+xml">
  </vcloud:User>

  <vcloud:Progress>100</vcloud:Progress>
</vcloud:Task>

  <vcloud:Task
    operation="remove-product-1a16249f-c892-4d46-a8e4-32f05b98247e" endTime="2012-01-
19T13:55:51.289-08:00" operationName="customerRemoveProduct" status="success"
    startTime="2012-01-19T13:55:50.430-08:00"
    type="application/vnd.vmware.vcloud.vcaf.task+xml"
    href="https://localhost/api/extension/vcaf/task/eab566b2-c54b-4c39-aa07-7a11705c3c9e"
    expiryTime="2012-04-19T13:55:50.430-07:00" id="eab566b2-c54b-4c39-aa07-7a11705c3c9e">
  </vcloud:Task>

  <vcloud:Description>remove product Paul'sFishingGear-isolatedNet-
caf0b925</vcloud:Description>

  <vcloud:Owner
    href="https://localhost/api/extension/vcaf/customer/b7b9a656-4d94-4d2d-838e-
77e48960905b" id="b7b9a656-4d94-4d2d-838e-77e48960905b"
    type="application/vnd.vmware.vcloud.vcaf.customer+xml">
  </vcloud:Owner>

  <vcloud:User
    href="https://localhost/api/extension/vcaf/user/00000000-0000-0000-0000-
000000000000" id="00000000-0000-0000-0000-000000000000"
    type="application/vnd.vmware.vcloud.vcaf.user+xml">
  </vcloud:User>

  <vcloud:Progress>100</vcloud:Progress>
</vcloud:Task>

  </vcaf:Tasks>
  <vcaf:AccountNumber>12345678</vcaf:AccountNumber>
  <vcaf:ContactInfo>
    <vcaf:Email>user@example.com</vcaf:Email>
    <vcaf:Voice>555-555-1212</vcaf:Voice>
    <vcaf:Fax>555-555-1313</vcaf:Fax>
  </vcaf:ContactInfo>
  <vcaf:Status>CustomerActive</vcaf:Status>
  <vcaf:VcdOrg
    href="https://172.16.200.220/api/admin/org/7b4d0420-d863-4614-bbd7-80353f800c3a"
    id="urn:vcloud:org:7b4d0420-d863-4614-bbd7-80353f800c3a"
    type="application/vnd.vmware.admin.organization+xml" name="Paul'sFishingGear-ff6378c5">
  </vcaf:VcdOrg>

  <vcaf:VcdOrgUI href="https://172.16.200.220/cloud/org/Paul'sFishingGear-ff6378c5"
  name="Paul'sFishingGear-ff6378c5"></vcaf:VcdOrgUI>

  <vcaf:Product
    href="https://localhost/api/extension/vcaf/product/712c6743-f451-4391-b3e5-
ca44947b39f2" type="application/vnd.vmware.vcloud.vcaf.product+xml"
    name="Paul'sFishingGear-isolatedNet-140c39c4" id="712c6743-f451-4391-b3e5-ca44947b39f2">

    <vcaf:CreatedTimestamp>2012-01-19T13:42:16.598-08:00</vcaf:CreatedTimestamp>

    <vcaf:ExpirationTimestamp>2012-02-18T13:42:16.591-08:00</vcaf:ExpirationTimestamp>
```

Sample response (continued)	<pre> <vcf:ResourceUri>https://172.16.200.220/api/admin/network/34bac129-e80f-4cd5-8ff5-1313a037f4ff</vcf:ResourceUri> <vcf:ProductTemplateRef href="https://localhost/api/extension/vcaf/productTemplate/434dfff0-15af-467a-8e3b-604cf88004b5" id="434dfff0-15af-467a-8e3b-604cf88004b5" type="application/vnd.vmware.vcloud.vcaf.producttemplate+xml" name="isolated network template"> </vcf:ProductTemplateRef> </vcf:Product> <vcf:Product href="https://localhost/api/extension/vcaf/product/6580bb31-72b0-4c76-9bbb-c9742810d9bf" type="application/vnd.vmware.vcloud.vcaf.product+xml" name="Paul'sFishingGear-allocationVappVdc-eda70dbe" id="6580bb31-72b0-4c76-9bbb-c9742810d9bf"> <vcf:CreatedTimestamp>2012-01-19T13:42:17.640-08:00</vcf:CreatedTimestamp> <vcf:ExpirationTimestamp>2012-02-18T13:42:17.633-08:00</vcf:ExpirationTimestamp> <vcf:ResourceUri>https://172.16.200.220/api/admin/vdc/df3b00e5-4928-4b91-8078-fc59716c9cae</vcf:ResourceUri> <vcf:ProductTemplateRef href="https://localhost/api/extension/vcaf/productTemplate/5ba43f76-e9ba-4fab-alb9-3bb10721ecf3" id="5ba43f76-e9ba-4fab-alb9-3bb10721ecf3" type="application/vnd.vmware.vcloud.vcaf.producttemplate+xml" name="allocation vapp vdc template"> </vcf:ProductTemplateRef> </vcf:Product> </vcf:CustomerRecord> </pre>
Sample response (continued)	</QueryResultRecordsType>
Success Response	200 OK

4.6 Delete customer

Service provider or reseller administrators can delete a customer account and free up system resources.

The transaction scope and error handling should ensure that a full cleanup is achieved even with delete failures.

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	DELETE /api/extension/vcaf/customer/{id}
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.task+xml, application/vnd.vmware.vcloud.vcaf.error+xml
Sample response	<pre><TaskType id="07490e6c-e5c1-40e0-af9f-ef7d1cef3151" expiryTime="2012-04-19T14:01:22.938-07:00" href="https://localhost/api/extension/vcaf/task/07490e6c-e5c1-40e0-af9f-ef7d1cef3151" type="application/vnd.vmware.vcloud.vcaf.task+xml" startTime="2012-01-19T14:01:22.938-08:00" status="running" operationName="deleteCustomer" operation="delete-customer-b7b9a656-4d94-4d2d-838e-77e48960905b" xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xml="https://www.w3.org/XML/1998/namespace" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"><vcloud:Description>delete customer Paul'sFishingGear</vcloud:Description><vcloud:Owner type="application/vnd.vmware.vcloud.vcaf.customer+xml" id="b7b9a656-4d94-4d2d-838e-77e48960905b" href="https://localhost/api/extension/vcaf/customer/b7b9a656-4d94-4d2d-838e-77e48960905b"></vcloud:Owner><vcloud:User type="application/vnd.vmware.vcloud.vcaf.user+xml" id="00000000-0000-0000-0000-000000000000" href="https://localhost/api/extension/vcaf/user/00000000-0000-0000-0000-000000000000"></vcloud:User></TaskType></pre>
Success Response	202 Accepted

5. vCloud Integration Manager API—Other

This section summarizes other vCloud Integration Manager API operations:

- [Create a session](#)
- [Create a service provider user](#)
- [List users](#)
- [Modify administrator accounts](#)
- [Delete administrator accounts](#)
- [Delete a session](#)
- [Get a task](#)

5.1 Create a session

Allows a service provider to begin a session.	
Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	POST /api/extension/vcaf/sessions
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.vcafsession+xml

Sample response	<pre><VcafSessionType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tns1="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="68e273c2-db47-4f5a-a09f- fce68e5e1492" name="spadmin-session" type="application/vnd.vmware.vcloud.vcaf.vcafsession+xml" href="https://localhost/api/extension/vcaf/sessions/68e273c2-db47-4f5a-a09f- fce68e5e1492"> <vcaf:User id="Some(00000000-0000-0000-0000-000000000000)" name="spadmin" type="application/vnd.vmware.vcloud.vcaf.user+xml" href="https://localhost/api/extension/vcaf/user/00000000-0000-0000-0000-000000000000"> <vcaf:Role>ServiceProviderUserRole</vcaf:Role> <vcaf:Company type="application/vnd.vmware.vcloud.vcaf.reseller+xml" id="00000000- 0000-0000-0000-000000000000" href="https://localhost/api/extension/vcaf/reseller/00000000-0000-0000-0000- 000000000000"/> <vcaf:ContactInformation> <vcaf:FirstName>CEO</vcaf:FirstName> <vcaf:LastName>John</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> <vcaf:Voice>555-555-1212</vcaf:Voice> <vcaf:Fax>555-555-1313</vcaf:Fax> </vcaf:ContactInformation> </vcaf:User> </VcafSessionType></pre>
Success Response	200 OK

5.2 Create a service provider user

Allows a service provider to be created.	
Role(s)	ServiceProviderUserRole
Operation	POST /api/extension/vcaf/serviceprovider/{id}/users
Content-Type	application/vnd.vmware.vcloud.vcaf.userparams+xml

Sample request XML	<pre><VcafUserParamsType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsctl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"> <vcaf:Username>djones</vcaf:Username> <vcaf:Password>password</vcaf:Password> <vcaf:ContactInfo> <vcaf:FirstName>Davey</vcaf:FirstName> <vcaf:LastName>Jones</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> </vcaf:ContactInfo> </VcafUserParamsType></pre>
Accept-Type	application/vnd.vmware.vcloud.vcaf.user+xml, application/vnd.vmware.vcloud.vcaf.error+xml
Sample response	<pre><VcafUserType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsctl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="eea44026-346a- 42a4-bd7d-00e4bbc68ae1" name="djones" type="application/vnd.vmware.vcloud.vcaf.user+xml" href="https://localhost/api/extension/vcaf/user/eea44026-346a-42a4-bd7d- 00e4bbc68ae1"> <vcaf:Role>ServiceProviderUserRole</vcaf:Role> <vcaf:Company href="https://localhost/api/extension/vcaf/reseller/00000000- 0000-0000-0000-000000000000"/> <vcaf:ContactInformation> <vcaf:FirstName>Davey</vcaf:FirstName> <vcaf:LastName>Jones</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> </vcaf:ContactInformation> </VcafUserType></pre>
Success Response	201 Created

5.3 List users

Enables service provider or reseller administrators to list/find user accounts. Resellers can only see users in their own company.

The input parameters include:

- Search query string, optional (when not set the results should list all products)
- Filter criterion based on state of the product, or product types
- Page size
- An offset or page number

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	GET /api/etxtension/vcaf/query?type=application/vnd.vmware.vcloud.vcaf.user+xml [¶m] [¶m ...] [&filter]
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.queryresultrecords+xml, application/vnd.vmware.vcloud.vcaf.error+xml

Sample response	<pre><QueryResultRecordsxmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" total="2" pageSize="25" page="1"> <vcaf:VcafUserRecord name="djones" type="application/vnd.vmware.vcloud.vcaf.queryresultuserrecord+xml" id="eea44026-346a-42a4-bd7d-00e4bbc68ae1" href="https://localhost/api/extension/vcaf/user/eea44026-346a-42a4-bd7d- 00e4bbc68ae1"> <vcaf:Role>ServiceProviderUserRole</vcaf:Role> <vcaf:Company type="application/vnd.vmware.vcloud.vcaf.serviceprovider+xml" id="00000000- 0000-0000-0000-000000000000" href="https://localhost/api/extension/vcaf/serviceProvider/00000000-0000- 0000-0000-000000000000"/> <vcaf:ContactInformation> <vcaf:FirstName>Davey</vcaf:FirstName> <vcaf:LastName>Jones</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> </vcaf:ContactInformation> </vcaf:VcafUserRecord> <vcaf:VcafUserRecord name="spadmin" type="application/vnd.vmware.vcloud.vcaf.queryresultuserrecord+xml" id="00000000-0000-0000-0000-000000000000" href="https://localhost/api/extension/vcaf/user/00000000-0000-0000-0000- 000000000000"> <vcaf:Role>ServiceProviderUserRole</vcaf:Role> <vcaf:Company type="application/vnd.vmware.vcloud.vcaf.serviceprovider+xml" id="00000000- 0000-0000-0000-000000000000" href="https://localhost/api/extension/vcaf/serviceProvider/00000000-0000- 0000-0000-000000000000"/> </vcaf:VcafUserRecord> </QueryResultRecordsType></pre>
Sample response (continued)	<pre><vcaf:ContactInformation> <vcaf:FirstName>CEO</vcaf:FirstName> <vcaf:LastName>John</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> <vcaf:Voice>555-555-1212</vcaf:Voice> <vcaf:Fax>555-555-1313</vcaf:Fax> </vcaf:ContactInformation> </vcaf:VcafUserRecord> </QueryResultRecordsType></pre>
Success Response	200 OK

5.4 Modify administrator accounts

Service provider or reseller administrators can update administrator accounts (resellers can only edit users in their own company), including:

- Full name
- Contact email
- Password

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	PUT /api/extension/vcaf/user/{id}
Content-Type	application/vnd.vmware.vcloud.vcaf.usersettings+xml
Sample request XML	<pre> <VcafUserSettingsType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:class="https://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"> <vcaf:ContactInfo> <vcaf:FirstName>Paul</vcaf:FirstName> <vcaf:LastName>Smith</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> </vcaf:ContactInfo> </VcafUserSettingsType> </pre>
Accept-Type	application/vnd.vmware.vcloud.vcaf.user+xml, application/vnd.vmware.vcloud.vcaf.error+xml

Sample response	<pre> <VcafUserType xmlns:cim="https://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_VirtualSystemSettingData" xmlns:class1="https://schemas.dmtf.org/wbem/wscim/1/cim- schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="https://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="https://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="https://schemas.dmtf.org/ovf/environment/1" xmlns:signup="https://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="https://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="https://www.vmware.com/vcloud/versions" xmlns:tns="https://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="https://www.vmware.com/vcaf/v1" xmlns:vcloud="https://www.vmware.com/vcloud/v1.5" xmlns:xs="https://www.w3.org/2001/XMLSchema" xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance" id="f4500ad8-0fda- 4cdc-a7d3-c0d16162ec09" name="psmith" type="application/vnd.vmware.vcloud.vcaf.user+xml" href="https://localhost/api/extension/vcaf/user/f4500ad8-0fda-4cdc-a7d3- c0d16162ec09"> <vcaf:Role>ServiceProviderUserRole</vcaf:Role> <vcaf:Company id="00000000-0000-0000-0000-000000000000" href="https://localhost/api/extension/vcaf/serviceProvider/00000000-0000- 0000-0000-000000000000"/> <vcaf:ContactInformation> <vcaf:FirstName>Paul</vcaf:FirstName> <vcaf:LastName>Smith</vcaf:LastName> <vcaf:Email>user@example.com</vcaf:Email> </vcaf:ContactInformation> </VcafUserType> </pre>
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Success Response	200 OK
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5.5 Delete administrator accounts

Service provider or reseller administrators can delete their company's administrator accounts. Administrators cannot delete their own account.

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	DELETE /api/extension/vcaf/user/{id}
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.error+xml
Success Response	204 No Content

5.6 Delete a session

Allows users to end their own session (log out).

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	DELETE /api/extension/vcaf/sessions
Content-Type	n/a
Accept-Type	application/vnd.vmware.vcloud.vcaf.error+xml
Success Response	204 No Content

5.7 Get a task

Service providers or resellers can retrieve a task by ID associated with their own user, or with one of their customers.

Role(s)	ServiceProviderUserRole, ResellerUserRole
Operation	GET /api/extension/vcaf/task/{id}
Content-Type	n/a
Sample request XML	https://192.168.128.182/api/extension/vcaf/task/53f15f5b-8556-460c-9822-911f835b936c
Accept-Type	application/vnd.vmware.vcloud.vcaf.task+xml, application/vnd.vmware.vcloud.vcaf.error+xml

Sample response	<pre> <TaskType id="53f15f5b-8556-460c-9822-911f835b936c" expiryTime="2012-05-27T20:50:08.918Z" href="https://localhost/api/extension/vcaf/task/53f15f5b-8556-460c-9822-911f835b936c" type="application/vnd.vmware.vcloud.vcaf.task+xml" startTime="2012-02-27T20:50:08.918Z" status="success" operationName="customerAddProduct" endTime="2012-02-27T20:50:09.451Z" operation="add-product-ca6ecf25-c11b-4afe-af58-c90c8db82c31" xmlns:cim="http://schemas.dmtf.org/wbem/wscim/1/common" xmlns:class0="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_VirtualSystemSettingData" xmlns:class1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CIM_ResourceAllocationSettingData" xmlns:ipamext="http://www.vmware.com/vcloud/extension/ipam/v1" xmlns:ovf="http://schemas.dmtf.org/ovf/envelope/1" xmlns:ovfenv="http://schemas.dmtf.org/ovf/environment/1" xmlns:signup="http://www.vmware.com/vcloud/extension/signup/v1" xmlns:stl="http://www.codesynthesis.com/xmlns/xsstl" xmlns:tnsl="http://www.vmware.com/vcloud/versions" xmlns:tns="http://www.vmware.com/vcloud/extension/v1.5" xmlns:vcaf="http://www.vmware.com/vcaf/v1" xmlns:vcloud="http://www.vmware.com/vcloud/v1.5" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"> <vcloud:Description>add 1 Template1_266d17c2-4c60-4a4c-aa82-aeebba760f25</vcloud:Description> <vcloud:Owner name="TestCustomer_266d17c2-4c60-4a4c-aa82-aeebba760f25" type="application/vnd.vmware.vcloud.vcaf.customer+xml" id="8fe08672-c0fe-4779-a174-cb3208451e75" href="https://localhost/api/extension/vcaf/customer/8fe08672-c0fe-4779-a174-cb3208451e75"/> <vcloud:User type="application/vnd.vmware.vcloud.vcaf.user+xml" id="00000000-0000-0000-0000-000000000000" href="https://localhost/api/extension/vcaf/user/00000000-0000-0000-0000-000000000000"/> <vcloud:Progress>100</vcloud:Progress> </TaskType> </pre>
Success Response	200 OK