



# Cloud Networks™

## Release Notes

OpenStack Quantum API v2 (April 4, 2014)

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OpenStack Quantum API v2 (2014-04-04)

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This document is intended for software developers who want to develop applications using Rackspace Cloud Networks™, which is powered by the OpenStack Quantum code base. In addition to the core features of the OpenStack Quantum Application Programming Interface (API) v2, Rackspace has also deployed certain extensions as permitted by the OpenStack Quantum API contract. The document is for informational purposes only and is provided "AS IS."

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# Preface

This document describes new features, limitations, and known issues for Rackspace Cloud Networks.

We welcome feedback, comments, and bug reports at <http://www.rackspace.com/support/>.

# API v2 Updates, May 13, 2013

This section describes features for the API.

## New Features

- **Cloud Networks virtual interface extension.**

Use the Cloud Networks virtual interface extension to create a virtual interface to a specified network and attach the network to an existing server instance. You can attach an isolated network that you created previously, or a Rackspace network.

A virtual interface works in the same way as the network interface card (NIC) inside your laptop. Like a NIC, a virtual interface is the medium through which you can attach a network. To use a virtual interface to attach a network to your server, you create and connect a virtual interface for a specified network to a server instance. The network, which is comprised of logical switches, is attached to your server instance through the virtual interface.

You can create a maximum of one virtual interface per instance per network.

You can also use the Cloud Networks virtual interface extension to:

- List the virtual interfaces for a server instance.
- Delete a virtual interface and detach it from a server instance.

You cannot delete an isolated network unless the network is not attached to any server. Previously, you could not detach a network from a server, but now you can through the Cloud Networks virtual interface extension. To detach a network from a server, delete the virtual interface for the network from the server instance.

## Removed Limitations

- Previously, you could not attach a network to an existing server. Now you can through the Cloud Networks virtual interface extension.
- Previously, you could not detach a network from a existing server. Now you can through the Cloud Networks virtual interface extension.

# API v2 Updates, October 30, 2012

This section describes the new features for the API.

## New Features

- **Phased-release launch of Cloud Networks.**

Cloud Networks is production ready but will be available to customers in a phased release cycle. Therefore, it might not be visible when you log into the Cloud Control Panel or available through the API.

# API v2 Updates, October 19, 2012

This section describes the new features for the API.

## New Features

- **New network rate limit for Cloud Networks.**

To detect if you are enabled to use Cloud Networks to create isolated networks, issue a **GET /limits** call or **nova absolute-limits** call.

Review the `maxTotalPrivateNetworks` value:

**Table 1. maxTotalPrivateNetworks Values**

maxTotalPrivateNetworks Value	Description
0	Cloud Networks is disabled.
Greater than 0	Cloud Networks is enabled. Indicates the number of isolated networks that you are allowed to create.

For more information about querying limits, see [Get Limits](#).

# API v2 Updates, September 20, 2012

This section describes the new features and limitations for the API.

## New Features

- **New network parameters on nova boot command.**

If you do not specify any networks on the `--nic` parameter on the **nova boot** command, PublicNet and ServiceNet are attached to your server.



### Note

ServiceNet is labeled as `private` and PublicNet is labeled as `public` in the network list.

If you specify isolated networks through the `--nic` parameter, these networks, PublicNet, and ServiceNet are attached to your server.

You can specify the optional `--no-public` and `--no-service-net` parameters to opt out of attaching either or both PublicNet and ServiceNet to your server:

### New network attributes on create server API operation.

You can specify the optional `uuid` attribute on the `networks` element in the request body for the create server API operation.

This attribute enables you to attach an isolated network, PublicNet, and ServiceNet to your server.



### Note

ServiceNet is labeled as `private` and PublicNet is labeled as `public` in the network list.

You must specify the networks that you want to attach to your server. If you do not specify any networks, ServiceNet and PublicNet are attached by default. However, if you specify an isolated network, you must explicitly specify the UUIDs for PublicNet and ServiceNet to attach these networks to your server. The UUID for ServiceNet is `11111111-1111-1111-1111-111111111111`, and the UUID for PublicNet is `00000000-0000-0000-0000-000000000000`. Omit these UUIDs from the request to detach from these networks.



### Note

Rack Connect and Managed Cloud Service Level customers will receive an error if they opt out of attaching to PublicNet or ServiceNet.

## Limitations

- You can create a maximum of three isolated networks.



- You can attach an isolated network to a maximum of 60 servers.
- A server instance can have a maximum of 15 virtual interfaces (VIFs).
- You cannot attach an isolated network to an existing server.

**Workaround:** Create an image of the server and build a new server based on that image. When you build the new server, you can attach the isolated network. For information, see [Attach a Cloud Network to an Existing Cloud Server](#). To use the create image API, see [Create Image](#).

- You cannot delete an isolated network unless the network is not associated with any server.
- You cannot detach an isolated network from a server.

**Workaround:** To detach an isolated network from a server, you must delete the server.

- You cannot rename an isolated network.
- You cannot renumber the CIDR for an isolated network.

# API v2 Updates, September 18, 2012

This section describes the new features for the API.

## New Features

- **New Python package for the Cloud Networks extension.**

To install the Cloud Networks extension, you now install the `os_networksv2_python_novaclient_ext` package. Previously, you installed the `rax_networks_python_novaclient_ext` package.

- **New resource for the Cloud Networks extension.**

The resource for the Cloud Networks extension is now named `os-networksv2`. Previously, it was named `rax-networks`.

# API v2 Updates, August 15, 2012

This section describes the new features for the API.

## New Features

- **New authentication endpoint.**

Customers with UK-based accounts can now issue a **POST /tokens** request to the Rackspace Cloud Identity Service at the <https://lon.identity.api.rackspacecloud.com/v2.0> endpoint to authenticate access to the Cloud Networks service.

In response to valid credentials, an authentication request to the Rackspace Cloud Identity Service v2 returns an authentication token and a service catalog.

For information about how to authenticate through the Rackspace Cloud Identity Service, see [Cloud Identity Client Developer Guide v2.0](#).

# API v2, July 11, 2012

This section describes the new features and known issues for the API.

## New Features

- Rackspace Cloud Networks extensions:
  - List networks. Lists networks for a specified tenant ID.
  - Create network. Creates an isolated network for a specified tenant ID.
  - Provision a server with isolated networks. Provisions a new server. By default, the server instance is provisioned with all Rackspace networks and isolated networks for the tenant. Optionally, you can provision the server instance with specific isolated tenant networks.
  - Show network. Lists information for a specified isolated network.
  - Delete network. Deletes a specified isolated network.

Before you can call any of these extensions, you must get an authentication token through the Rackspace Cloud Identity service.

- The Cloud Networks extensions have been added to the nova client. You can issue nova client commands to run the Cloud Networks extensions.

## Known Issues

- You cannot programmatically detach a network from a server instance. The only way to detach the network is to delete the server instance.
- You cannot delete a network that is attached to a server instance.
- The network extension does not support XML requests and responses.
- You cannot connect a network to an already existent server instance.