Cloud.com CloudStack 2.2.2  
Release Notes

March, 2011

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Contents

[1 Overview 4](#_Toc287361044)

[2 2.2.2 5](#_Toc287361045)

[2.1 Issues Fixed in 2.2.2 5](#_Toc287361046)

[2.2 New Features in 2.2.2 6](#_Toc287361047)

[3 2.2.1 7](#_Toc287361048)

[3.1 Issues Fixed in 2.2.1 7](#_Toc287361049)

[3.2 New Features in 2.2.1 7](#_Toc287361050)

[4 New Features in 2.2 8](#_Toc287361051)

[5 API Changes 10](#_Toc287361052)

[6 Known Issues 11](#_Toc287361053)

[7 Upgrade 12](#_Toc287361054)

[7.1 Upgrade from 2.2.0 or 2.2.1 to 2.2.2. 12](#_Toc287361055)

[7.1.1 KVM Hosts 12](#_Toc287361056)

# Overview

These Release Notes provide a brief description of new features and known issues for the 2.2.2 release of the Cloud.com CloudStack.

Please read the Known Issues section before installing. The Installation Guide provides step by step instructions for installation.

**Upgrades from 2.1.x to 2.2.2 are not yet supported. We will provide an upgrade path in March.**

**Upgrades from 2.2.0 or 2.2.1 to 2.2.2 are supported. The procedure is later in this document.**

We would like to hear your feedback. You may submit feedback to us at support@cloud.com.

# 2.2.2

## Issues Fixed in 2.2.2

|  |  |
| --- | --- |
| 8614 | The storage allocator now functions correctly. |
| 8731 | Console view of guests on vSphere hosts now works correctly. |
| 8865 | It is now possible to start VMs whose networks were shutdown when using 2.2.0. |
| 8635 | Direct network VM creation will work correctly in the CloudStack UI wizard. |
| 8514 | The OS type dropdown is correctly populated when creating a template from a volume. |
| 8892 | The DNS server for guests in direct tagged networks is now set properly. |
| 8912 | Password management scripts now work correctly with multiple NIC guests in all cases as well as external firewall configurations. |
| 8604 | Adding a second management server will work reliably. |
| 7935 | There is a mechanism to bill differently for guests of different hypervisor type when the guests are started from ISO images. |
| 8530 | Adding vSphere hosts to an existing cluster will work reliably. |
| 7762 | The snapshot and volume copy logic for vSphere hosts has been moved into the Secondary Storage VM. |
| 8806 | The set of hypervisors present in the cloud is now represented correctly by the API and UI. |
| Many | Several bugs in HA functionality across hypervisors and storage types have been fixed. |
| Many | Several bugs in internationalization and localization have been fixed. |
| 8632 | The dashboard view or domain administrators is now correct. |
| 8104 | If the secondary storage VM is down, booting a guest off ISO will work. |
| Many | Several logging improvements have been made. Logging is less verbose in some cases and more descriptive in others. |

## New Features in 2.2.2

|  |  |
| --- | --- |
| 8349 | Routers may be listed by network ID. |
| 8250 | KVM: Security groups will work with direct tagged networks. |
| 8664 | A maximum page size is enforced. This limits server memory impact from large queries. |
| 8263 | A domain specific zone may have its scope adjusted to be public. |

# 2.2.1

## Issues Fixed in 2.2.1

|  |  |
| --- | --- |
| 8574 | Account deletion could fail leaving resources orphaned. |
| 8631 | The DHCP server would not start in the case of external firewall integration. |

## New Features in 2.2.1

There are no new features in 2.2.1.

# New Features in 2.2

|  |  |
| --- | --- |
| **Issue Number** | **Issue Description** |
| 591 | Virtual Machines may have multiple NICs. |
| 6802 | Service offerings and disk offerings may be made private to a domain. |
| 1974 | The Virtual Router memory may be changed. |
| 2461 | A user may VPN into their virtual network using IPSec/L2TP. |
| 3120 | 1:1 NAT of public IPs is possible. |
| 3346 | There is a command line interface (CLI) tool for the CloudStack. It is called cloudadm. This tool is in a beta state and its syntax may change substantially in future releases. |
| 3386 | Zones may be dedicated to domains. This allows for hardware dedication and a higher level of isolation. |
| 3676 | Multiple hypervisor types may exist in the same CloudStack cloud. An individual cluster consists of nodes of the same hypervisor type. |
| 4286 | Templates may be extracted via HTTP download or HTTP POST. |
| 4774 | ISOs may be public. |
| 4836 | Limits may be set on a domain basis. This allows an administrator to prescribe aggregate limits that apply to a set of accounts. |
| 5060 | Disk offerings can have arbitrary sizes. |
| 5147 | Primary storage devices may be placed into a maintenance mode. Then they may be taken offline and later returned to service. |
| 5190,5191 | The URL used by the Console Proxy code and its associated SSL certificate may be configured and changed. |
| 5507 | VMware vSphere ESX/ESXi are supported as hypervisor types. The CloudStack can manage vCenter clusters or standalone nodes. |
| 5559 | Snapshots are supported for local disk storage. |
| 5592 | The DNS domain for guests may be configured. |
| 5688 | KVM CloudStack nodes now support VLANs for isolation. |
| 5784 | KVM CloudStack now supports snapshots. |
| 5800 | KVM CloudStack supports cluster functionality, analogous to vSphere and XenServer. |
| 6103 | The "look back period" for which the system considers a stopped VM to still be consuming resources is configurable. |
| 6994 | XenServer: administrators may add pre-existing SRs as primary storage to CloudStack. This enables support for FiberChannel storage. |
| 7871 | KVM: Shared mountpoint storage is available. This enables the use of clustered filesystems like OCFS2 as primary storage. |
| 8495 | Support Juniper SRX as a managed router for guest virtual networks. |
| 8496 | Support F5 load balancer as a managed device for load balancing in virtual networks. |
| <many> | There have been many API enhancements, including the ability to show the lineage of a volume, show a volume's attachment time, determine a cloud's capabilities, find the OS type of a virtual machine, search for deleted templates, and more. |

# API Changes

The API has had several enhancements for 2.2. There are a large number of small changes to the API. The API was significantly improved and made more consistent. As a result most applications developed against the API will need to be adapted to be compatible with 2.2.

2.2 API documentation is available at:

Global Admin: http://download.cloud.com/releases/2.2.0/api/TOC\_Global\_Admin.html

Domain Admin: http://download.cloud.com/releases/2.2.0/api/TOC\_Domain\_Admin.html

User: http://download.cloud.com/releases/2.2.0/api/TOC\_User.html

# Known Issues

|  |  |
| --- | --- |
| **Issue Number** | **Issue Description** |
| 8105 | KVM: NFS v4 for primary storage may not work. Use v3. |
| 8076 | KVM: Unable to process quoted strings in ifcfg-eth0 when setting up the CloudStack Agent. |
| 8486 | XenServer: putting a host into maintenance mode will fail if some guests do not have PV drivers. |
| 5573 | KVM: editing the name of a Pod will prevent VMs from starting. |
| <many> | The internationalization feature of the CloudStack is immature. Some strings have not been extracted and will still render in English. |

# Upgrade

Upgrade is supported from 2.2.0 GA or 2.2.1 to 2.2.2. The following section describe the procedure.

**WARNING: The CloudStack upgrade does not preserve UI customizations. Customers with customizations should save altered files before applying the upgrade. Then create a script that will re-apply the changes after the upgrade. Any customizations should be tested on a staging environment prior to upgrade to a new version.**

## Upgrade from 2.2.0 or 2.2.1 to 2.2.2.

Perform the following to upgrade from 2.2.0 or 2.2.1 to 2.2.2.

1. Stop all Usage Servers if running. Run this on all Usage Server hosts.

# service cloud-usage stop

1. Stop the Management Servers. Run this on all Management Server hosts.

# service cloud-management stop

1. Untar the tgz download and cd into the resulting directory. Then update the software on each Management Server.

# ./install.sh

Choose "U" to update the packages.

1. Copy the following files to the server running the MySQL master database.

/usr/share/cloud/setup/221to222upgrade.sh

/usr/share/cloud/setup/221to222.sql

/usr/share/cloud/setup/221to222\_usage.sql

1. On the MySQL master take a backup of the mysql databases.

# mysqldump cloud > cloud-backup.dmp

# mysqldump cloud\_usage > cloud-usage-backup.dmp

1. On the MySQL master run the database upgrade script.

# ./221to222upgrade.sh

1. Start all Management Servers. Perform this on each Management Server host.

# service cloud-management start

1. Start all Usage Servers (if previously running). Perform this on each Usage Server host.

# service cloud-usage start

### KVM Hosts

Additional steps are required for each KVM host. These steps should be performed after the Management Server upgrade above. These steps will not impact running guests in the cloud. These steps are required only for clouds using KVM as hosts and only on the KVM hosts.

On each KVM host:

1. Copy the tgz download to the host, untar it, and cd into the resulting directory.
2. Stop the running agent

# service cloud-agent stop

1. Update the agent software

# ./install.sh

Choose "U" to update the packages.

1. Start the agent

# service cloud-agent start