Cloud.com CloudStack 2.1  
Release Notes

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Contents

[1 Overview 4](#_Toc267512466)

[2 New Features in 2.1 4](#_Toc267512467)

[3 API Changes 5](#_Toc267512468)

[3.1 Changed API Calls 6](#_Toc267512469)

[3.2 New API Calls 8](#_Toc267512470)

[4 Templates 8](#_Toc267512471)

[5 Known Issues 8](#_Toc267512472)

# Overview

These Release Notes provide a brief description of new features and known issues for the 2.1 release of the Cloud.com CloudStack.

**Important: This release requires XenServer 5.6.**

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

Upgrades to 2.1 from 2.0 GA are supported. At the time of release the upgrade procedure is still under development.

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

# New Features in 2.1

|  |  |
| --- | --- |
| **Issue Number** | **Issue Description** |
| 2508 | Direct attached networking has been implemented. This provides for VMs to receive IP addresses that are not NATed. The VMs do not use the virtual router as their gateway. |
| 2009 | The owner of templates is now shown in the UI. |
| 3377 | Summary statistics about host and guest CPU, memory, and network utilization is displayed. |
| 4040 | Long running actions now record 3 events: the scheduled time, when they are first received; a start time, when work to address them starts; and a completion time, when the action has completed either successfully or with an error. |
| 4041 | New options are provided to listEvents that will allow an admin to examine events that have been running for a long time without completion. |
| 4121 | The CloudStack now supports "Clusters". Clusters are XenServer pools and share storage and allow for live migration of guests within them. Multiple clusters per Pod are allowed. Behavior similar to 2.0 may be achieved by having one Cluster per Pod. |
| 4171 | A VM may now be started without a data disk. |
| 4192 | Link local addressing is now used to communicate to the virtual router. This reduces the use of private IP addresses in the CloudStack and improves security. |
| 4285 | The API has been enhanced to allow manually setting API keys for a user. |
| 4353 | The listLoadBalancers API command has been enhanced to list load balancers mapped to a specific VM. |
| 4354 | The listAsyncJobs API command has been enhanced to allow an admin to list outstanding jobs for all users. |
| 4367 | A new single sign on mechanism has been implemented. This allows for URLs signed with a shared, secret key to allow a UI login to the CloudStack (e.g., redirection from a portal). |
| 4741 | Live migration support has been added for KVM. |
| 4822, others | Tags have been added on primary storage, service offerings, and disk offerings. This allows for tiered storage. |
| 4833 | It is now possible to disable the public template functionality. |
| 4837 | It is now possible to associate a tagged VLAN with a particular account. This is done in conjunction with direct attached networking. |
| 4961 | Domain names no longer have to be unique. As a result a user must log in with the full path to their domain. For example, if there is a domain /a/b, previously users would login with domain "b". Now they must specify /a/b. The root domain is now specified as "/". |
| 4962 | The listTemplates API command has been enhanced to return the size of the templates. |
| 5226 | The open source install has been improved to better handle multiple Zones and Pods. |
| 4375 | The API has been enhanced so that queryAsyncJobResult returns fully populated objects. |
| 5706 | When a VM is destroyed its attached data disks are not destroyed. This is a change from 2.0 behavior. |

# API Changes

The API has had several enhancements for 2.1. The below is a summary description of the changes.

## Changed API Calls

* deployVirtualMachine
  + diskOfferingId is now optional param.
* listTemplates
  + returns crosszones reponse – true if the template is managed across all zones, false otherwise
  + return size response
  + templateFilter param is now required **(backwards incompatible)**
* listIsos
  + returns crosszones reponse – true if the template is managed across all zones, false otherwise
  + return size response
* addHost
  + returns everything that is now listed in the listHosts command.
  + Optional new param clusterId and clusterName
  + Returns clusterid and clustername
* listHosts
  + returns one or more events tag.
  + Return clusterid and clustername
  + Return islocalstorageactive response
* updateUser
  + apiKey and secretKey are new optional params.
* updateTemplate
  + format, osTypeId, passwordEnabled are now new optional params.  Similarly they are returned as part of the response
* updateIso
  + osTypeId, bootable are now new optional params.  Similarly they are returned as part of the response
  + format returned as response
* createSnapshot
  + optional account, domainId param for use by admin accounts.
* createSnapshotPolicy
  + optional account, domainId param for use by admin accounts.
* createServiceOffering
  + optional useVirtualNetwork param.  Default value is true.  If true, the VM created will use default virtual networking whereas if false, the VM created will use a direct attached networking model.
  + Optional tags param
  + Return tags response
* listServiceOfferings
  + forVirtualNetwork response returned
  + return tags response
* createVlan
  + zoneId param is now optional
  + account, domainId, podId, forVirtualNetwork are new optional parameters.  These are also returned as part of the response.
* createVlanIpRange
  + name param is now removed
  + forVirtualNetwork, account, domainId are new optional parameters
* listVlanIpRange
  + optional param podId, account, domainId
  + name response is now removed **(backwards incompatible)**
  + returns new response values forvirtualnetwork, podid, podname, account, domainid
* listPublicIpAddresses
  + forvirtualnetwork response now returned
  + forVirtualNetwork optional param now added
* listAsyncJobs
  + optional params account, domainId, startDate
* login
  + directattachnetworkgroupsenabled and xencreatepoolsinpod response returned.
* listRouters **(backwards incompatible)**
  + ipaddress response is now guestipaddress
  + macaddress response is now guestmacaddress
  + new guestnetmask response returned
* createDiskOffering
  + return created response
* deleteVolume is now a synchronous command rather than async.
* listStoragePools
  + optional new podId param
  + returns one or more tags response
  + return clusterid and clustername response
  + return tags response
* listLoadBalancerRules
  + optional new virtualMachineId and publicIp param
* createLoadBalancerRule
  + removed account and domainId from params
* createPod
  + new required gateway param
* updatePod
  + new optional gateway param
* listPods
  + return gateway response
* createStoragePool
  + new optional tags and details param
  + returns tags and detail param
  + podId param is now optional
  + new optional clusterId param
  + returns clusterid and clustername response
* listSnapshots
  + removed path from being returned
* associateIpAddress
  + forvirtualnetwork response now returned
* deletePortForwardingService is now async from sync. **(backwards incompatible)**
* listEvents
  + optional param entryTime and duration
  + return id, state, parentId in response
* resetPasswordForVirtualMachine
  + now returns all values from listVirtualMachine + the password that was reset
* updateVirtualMachine
  + now returns all values from listVirtualMachine
* attachVolume **(backwards incompatible)**
  + volumeid -> id, and volumename -> name

## New API Calls

* createPortForwardingRule
* deletePortForwardingRule
* updatePortForwardingRule
* updateStoragePool
* listClusters

# Templates

**Important: templates from the 1.0 system will not work on 2.1. There is a new template creation procedure that is documented in the CloudStack Administration Guide.**

# Known Issues

2.1 is certified for production use. The following table describes some of the issues you are likely to encounter during your deployment and testing. For more information please consult our bug database at http://bugs.cloud.com.

|  |  |
| --- | --- |
| **Issue Number** | **Issue Description** |
| 3283 | The console proxy session does not persist through a guest reboot. |
| 4660 | XenServer: No alerts are issued if iSCSI LUNs go offline. |
| 4695 | Service Provider and Enterprise Edition: The monthly recurring snapshot schedule has only 28 days. |
| 2132 | If the last guest VM for an account dies unexpectedly the network resources occupied by the account may not be freed. |
| 4936 | XenServer: Switching the cluster master can fail. If the cluster's master fails the CloudStack will attempt to appoint a new master. This master switch can fail requiring admin intervention to restore the cluster. |
| 5371 | In some cases error events are not generated in the event an action fails. |
| 5416 | A service offering upgrade may be allowed even when the guest VM cannot start as a result of the upgrade. This can happen if the service offering requires more CPU or RAM than present on any host in the cluster. |
| 5573 | KVM: Editing a Pod name can break the Agent's ability to connect back to the Management Server. Do not edit Pod names after install on the Community Edition. |
| 4881 | Service Provider and Enterprise Editions: if the Usage server crashes in the middle of processing events you will need to contact support to recover. |