



Roadmap


This is the roadmap for CloudStack code development.



Everyone can enter/claim items, collaborate on development and help deliver the fixes/feature/refactor.



Create a JIRA entry for each item and update progress in this table.



Feature /Component	JIRA bug	Participant	Planned Release	Short description	Last Updated	Comments
Upgrades						
<ul style="list-style-type: none">Database upgradeSchema versioning and tooling (jooq, flywaydb etc)Agent upgradesSystemVM upgradesComponent /Plugin level upgradesConfig upgradesRollback support		Kishan Kavala (Citrix) Rohit Yadav (ShapeBlue) John Burwell (ShapeBlue)		WIP FS: CloudStack Chimp		Is any of this complete? It seems that this covers several projects.
Improved System VM template management		Paul Angus		Process for 'seeding' and updating system VM templates needs revamping. Installation of system VM templates could/should be handled by API. As should the installing of 'updated templates'. Initial seeding of templates can be handled by the create zone wizard - thereby allowing for 'default' templates or custom URLs to be used.		
Packaging						
Use embedded jetty		Rohit Yadav	4.11			
Better Log handling		Paul Angus Daan		The CloudStack logs are often difficult to read due to the sheer volume of information which is output. This can be helped by revisiting classifications of log output such logging can be set to 'info' (rather than debug) - without losing important information.		
Storage						


Shared data disk	 CLO UDSTAC K-8561 - Jira project doesn't exist or you don't have permissi on to view it.	Paul Angus		Very large percentage of enterprises use clustering for applications such as MS SQL. CloudStack cannot currently present a disk to multiple VMs		
Snapshots on SAN		Mike Tutkowski and Syed Ahmed				
Ability to migrate secondary storage		Daan, Wei Zhou (Leaseweb)				
Snapshot Improvements	 CLO UDSTAC K-8663 - Jira project doesn't exist or you don't have permissio n to view it.	Anshul Gangwar (Citrix)		Split volume snapshot process Allow VM snapshot and volume snapshots to exist together		JIRA still open. "Planned Release" needs changing



Deploy user instance from VM snapshot	 CLO UDSTAC K-8676 - Jira project doesn't exist or you don't have permissio n to view it.	Sateesh Chodapuneedi		Support quick deployment of user instance from VM snapshot		JIRA still open. "Planned Release" needs changing
Network						
Block creation of Basic Zones		Wido den Hollander	5.0	Advanced Networking with Shared VLANs (vlan://untagged) offers the exact same functionality as Basic networking does. To be able to deprecate Basic Networking in the future we should prevent users from creating new Basic networks		


IPv6	<div> CLO UDSTAC K-8529 - Jira project doesn't exist or you don't have permissio n to view it.</div> <div> CLO UDSTAC K-674 - Jira project doesn't exist or you don't have permissio n to view it.</div>	Wido den Hollander	4.10	IPv6 support in Basic Networking: IPv6 in Basic Networking		
DST in egress		ShapeBlue				

Netscaler integration	<div>  CLO UDSTAC K-8672 - Jira project doesn't exist or you don't have permissio n to view it. </div> <div>  CLO UDSTAC K-8673 - Jira project doesn't exist or you don't have permissio n to view it. </div>	Rajesh Battala (Citrix)	4.6	Integrate NCC with CloudStack to leverage ADC functionality and Additional Enterprise Features provided by NetScaler FS link NCC Integration With Auto Provision VPX in CloudStack		JIRAs still open. "Planned Release" needs changing
Openswan withstrongswan		Jayapal (Citrix)				
Next Generation Networking (NFV)		Paul Angus		Suite of features to allow users and operators to integrate virtual networking appliances from 3rdpartyvendors into ACS networks <ul style="list-style-type: none"> • More versatile network topology (including service chaining) • Networking device/ Appliance object class • Expose additional processor features • Next Gennetworking SDK 		
Visual Network designer		Paul Angus		Visualisation of networks and VM's -allowcreation and modification of networks in a visual way		

OSPF,routed networks		Abhinandan Prateek Rohit Yadav ShapeBlue	Future	Enterprises often require non-NAT/OSPF networks. Dynamically routed VPC		
Configurable MAC address		IDC Frontier		Enable to specify MAC address range to avoid MAC address collision when VMs are connected across zones and regions.		
UI, API						
Billing Quota	 CLO UDSTAC K-8592 - Jira project doesn't exist or you don't have permissio n to view it.	Abhinandan Prateek Rohit Yadav (ShapeBlue)	4.6.0	Quota Service - FS		JIRA fixed in 4.6. Can this be deleted.
RBAC or add new roles	 CLO UDSTAC K-8562 - Jira project doesn't exist or you don't have permissio n to view it.	ShapeBlue	4.9	Static command,properties moved todatabaseand made user definable (RBAC Lite)		JIRA fixed in 4.9. Can this be deleted?
Comments /annotations to CloudStack elements (i.e firewall rules, hypervisors,nics)		ShapeBlue	4.11			

Improve SAML plugin	 CLO UDSTAC K-8457 - Jira project doesn't exist or you don't have permissio n to view it.	Rohit Yadav (ShapeBlue)	4.6.0, 4.5.2	SAML 2.0 Plugin		JIRA fixed in 4.6. Can this be deleted?
QA, Drivers and automation						
Better tests		Abhinandan Prateek ShapeBlue	5.0, 4.9+	Simulating faults in real and hybrid environments.		
Test environment (Trillian & Winston)		ShapeBlue	4.9			
QA/CI environment		pdion891 Bharat Kumar (Citrix)	4.6.0	1. automatejenkinsslaves creation. 2. build provide package repo for easier deployment 3. automate tests run and test-cloud deployment		
Plugin driver certification		ShapeBlue				
Crowdsource QA results		ShapeBlue				
Misc						
VNC console (noVNC)		Rohit Yadav (ShapeBlue), Wei Zhou (Leaseweb)	4.11			
Docker/Containers		pdion891	4.6.0	Dockerfiles		

iSCSI and HA support in Hyper-V	 CLO UDSTAC K-8444 - Jira project doesn't exist or you don't have permissio n to view it.	Anshul Gangwar (Citrix)	4.6.0	Design document is available at iSCSI and HA support in Hyper-V		JIRAs still open. "Planned Release" needs changing
Support for non-US keyboards in Console Proxy	 CLO UDSTAC K-8665 - Jira project doesn't exist or you don't have permissio n to view it.	Anshul Gangwar (Citrix)	4.6.0	Make it easier for CloudStack service providers to add their own keyboards		JIRAs still open. "Planned Release" needs changing
3rd party library updates		all		A lot of libraries are outdated.effortneeds to go into upgrading those		Perhaps too general. Can a specific list be added or can this task be removed since it may be part of any release or bugfiz?
Architecture						

Multi- mangementserver aware agents	 CLO UDSTAC K-8563 - Jira project doesn't exist or you don't have permissio n to view it.	Rohit Yadav, Nicolas Vasquez (ShapeBlue)	4.11	Management server(s) should publish a list of active management servers in failover order. The list should be dynamically updated according to load /availability/location ofindirectagent. Agents use this list. May require also fixing management server clustering.		
Optimisation						
Metrics view		Rohit Yadav	4.9	allow users to explore usage of underlying infrastructure (hosts)		
Dynamic resource scheduling for KVM /Xen server		Paul Angus		Presently, CloudStack manages KVM and XenServer hosts and allows for the placement and migration of the VMs via deploy and migrate API calls. Build an engine that can move VMs within a cluster based on CPU and Memory metricsitsalready exposed, to pack hosts, balance load, or move VMs to 'make space' for large VMs.		
out of band management		Rohit Yadav	4.9	power management of underlying hosts for power optimisation		
Customisable algorithms to enable automated power management		Paul Angus				